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H. Fowler.

CANTEENS IN INDUSTRY



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CANTEENS IN INDUSTRY

*A Guide to Planning, Management
and Service*

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PREFACE

THE present booklet on the setting up and running of works canteens was first printed at the beginning of the war, in the hope that it would be helpful to those many firms which, due to conditions of war-time production, would need to make provision for the feeding of workpeople at the factory itself. Demand for copies greatly exceeded expectation and within a few weeks the first edition was sold out. A second edition was prepared at the end of December, but despite the large number then printed this edition too has been exhausted. With the appearance of a third edition opportunity has been taken to go through the whole text most carefully and many additions have been made. Special attention has been given to the problems raised by rationing, by the need to provide meals for both day and night shifts, and by the difficulties of giving quick service of hot meals and refreshments in very large and scattered plants.

There has long been need for a booklet on industrial canteens, for there is a dearth of literature on this special subject. The problems of feeding evacuated children, A.R.P. workers and others has stimulated the compilation of booklets on menus, but few of these deal in any detail with the preliminary work of planning and equipping premises or the problems of management once the canteen is established. It has been the aim of the Industrial Welfare Society to supply that essential information in this present booklet, but it fully recognises that only the bare outlines of the subject can be given in some 70 pages of text. As far as possible, supplementary sources of information have been indicated. The Society itself, however, will be only too happy to give firms any help in its power if they write on special difficulties.

A number of experts have readily given information and advice on different sections of the booklet, and their help, both in the original writing of the booklet and in subsequent alterations to the text, has been invaluable. To canteen managers, firms of outside caterers, manufacturers of canteen equipment, associations of specialists who have helped in this way, the Society would like to express its gratitude. The booklet is put forward as a contribution to practical thinking on an important branch of social service. It will have achieved its main object if it helps those concerned with canteens in industry to examine critically every phase of their work from the point of view of service to the industrial community.

CHAPTER I

INITIAL PLANNING

THE works canteen to-day has become an accepted and essential part of large-scale industry and few would deny its benefits from the point of view of health, efficiency and well-being. Under conditions of production in war time its function becomes even more important and it is to be expected that a number of firms will need to build canteens where these do not already exist or to augment the services of those established to meet peace-time requirements. The chapters which follow attempt to give practical information on how to set up and run canteens, while the present introductory chapter outlines some of the reasons which prompt firms to organise communal feeding for their work-people and stresses the preliminary information which it is necessary to assemble if the canteen is to meet the special needs of a particular factory.

THE NEED FOR A CANTEEN

War conditions, far from lessening the need for canteens, have very greatly increased their usefulness. Several points may be mentioned here. To a considerable extent new labour is now being recruited from women and young persons. Many of the women are likely to be married and in consequence there will be no one at home to prepare any meals during the day. In these circumstances the factory canteen may well prove the only source of good, hot food. Moreover, many of these workers are drawn from considerable distances and it is quite impracticable for them to return home at meal times. If the health and well-being of all classes of labour is to be maintained it is essential that they should not be dependent upon snacks or packet lunches brought with them to the factory or on the refreshments which may be bought at cafés and coffee stalls. In the majority of cases the facilities outside the factory will prove entirely inadequate and their prices beyond the reach of the average worker. In other cases these facilities themselves will be inadequate to cope with the demand.

*Difficulties
in obtaining
Meals*

Shift work is likely to become necessary in a considerable proportion of factories, and here again the provision of meals in the canteen becomes of vital importance. In plants where the labour is confined to men it may be found that their wives are also at work or evacuated to the country and thus after a shift they will not be able to get a decent meal at home. The provision of breakfasts, suppers and teas, as well as the usual mid-day meal, may become, therefore, an important part of the canteen's function. Even if the numbers on night shift are quite small their needs should not be neglected. Longer hours of work and overtime will throw a considerable strain on the health and morale of industrial workers and it will be of tremendous benefit for them to know that they can secure a good meal both during the day and after work before facing a long and dark journey home. Transport difficulties and the need for blackout after sunset inevitably upset the normal domestic arrangements of workers of all types, and here again the canteen can ease enormously such difficulties by meeting the special needs of groups of workers

*Provision of
Breakfasts
and Suppers*

in different localities. But over and above all these matters the beneficial effect of good and inexpensive meals on health and general well-being during a time of stress cannot be emphasised too strongly. During the war 1914-1918 many of the simple precautions for safeguarding health and safety in industry were relaxed with disastrous results on output, contentment, and morale. These mistakes were in part rectified by the Ministry of Munitions Welfare Department, but for many the years of factory work during that period remain as dark memories. There is to-day no need to repeat the mistakes of a generation ago, and undoubtedly the establishment of a canteen fully equipped to meet all the needs of the factory is one of the first essential conditions for the smooth and happy working of an industrial community.

The general arguments, moreover, which underlie the setting up of canteens in peace time lose none of their force because of the transition to war production. Recent research has shown conclusively the close connection between good feeding and good health and has revealed, moreover, how widespread is malnutrition amongst the workers of this country. In many instances malnutrition is due to ignorance of what constitutes a good dietary, but in perhaps the majority of cases it is due to inadequacy of income to meet the essential costs of good food. This is particularly the case with large families, with workers who have long periods of unemployment during the year, with women and juveniles whose wage levels are low and with heavy manual workers whose daily expenditure of energy necessitates particularly substantial meals. The factory canteen can supply inexpensive and good meals which can do much to combat the effects of malnutrition and hence improve efficiency and general health. The needs of special groups of workers, juveniles, those on special diet, heavy workers and others may be met in the firm's canteen to the benefit of all concerned. The Factories Act, 1937, forbids the eating of food in workrooms where certain dusty and dangerous processes take place, and forbids women and young persons to remain during mealtime in a workroom where a manufacturing process is being carried on. Thus the law has sanctioned in a limited number of factories the practice of a far greater number which have recognised that if the full benefit is to be obtained from the break for lunch, facilities should be provided for the workpeople to leave the workrooms and partake of their lunch in a messroom or canteen where the air is fresh and the atmosphere free and cheerful. The opportunity to relax in comfort provided by the canteen is one of its most important functions. Many employers feel that, quite apart from questions of greater efficiency, contentment and better health records amongst employees, they can perform a most useful social service in establishing a canteen and it is their duty to make this provision for the comfort and convenience of their workpeople. Such provision need not be elaborate nor need it be confined to the large firms. The essential requirements are that accommodation is clean and bright, the food good and inexpensive, the service quick and efficient and the atmosphere of the canteen friendly. These can be obtained in the very small canteen no less than in the large if careful thought is given to initial planning and in its subsequent running full weight is given to the desires of the canteen customers.

PLANNING THE CANTEEN

Of the canteens which have been opened during the last few years some have been quite unpretentious, just a single dining-room, simply furnished but painted in pleasing colours, with the necessary kitchen, storage and staff rooms;

*Nutrition
and Health*

*Rest during
Meal-time*

others have been designed on almost luxurious lines, having several dining-rooms with modern furniture and fittings, large recreation rooms and dance halls, sun terrace and so forth. Most of the canteens opened have quickly justified their existence, but, unfortunately, there have been some which have not been as successful as was hoped. Sometimes the need has been over-estimated, sometimes the canteen administration has been at fault; in other instances again the canteen has been highly successful in so far as it has fulfilled a real need but errors of planning have made organisation unduly difficult and a considerable amount of reconstruction has been necessary.

*Essential
Preliminary
Information*

In the main these setbacks have been due to lack of adequate preparation and planning. Before any work on the canteen is begun it is essential that the following preparations should be made:—

1. Estimate as closely as possible the number of employees likely to use the canteen and the kinds of service most needed.
2. The site must be decided (if there is any choice) and the necessary accommodation determined.
3. Consultation should take place between the management and the specialists responsible for the various aspects of the planning.
4. Arrange for visits to other canteens and study their problems and layout.

In estimating the numbers likely to use the canteen it must be remembered that these cannot be calculated solely according to the size of the firm. A survey of canteens made recently showed that in the firms concerned the percentages of employees making purchases in the canteen ranged from 10 per cent. to 100 per cent. and the percentages taking full meals from 2 per cent. to 45 per cent. (Other canteens are known, however, where the percentage taking meals is considerably higher than this.) In order to arrive at a fair estimate an effort should be made to discover what proportion of the employees live too far from the works to return home in the middle of the day, how many bring cold food, how many bring food to be warmed up and how many go out to cafés, etc., for meals. An enquiry could then be made as to how many of the employees would welcome the establishment of a canteen and be likely to use it. This might be done by notices in the various departments or through the foremen, but whatever method is adopted in order to get the closest possible figures, the personal approach to individuals and groups should be regarded as essential.

It will be necessary also, in estimating requirements, to consider the composition of the staff, the proportion of juveniles, of women workers and of clerical staff; the type of work done, light manual, heavy manual, sedentary and so forth; what shift workers and night workers there are and, most important of all, perhaps, the wage rates in force. These facts will help to decide the most appropriate type of service for the canteen.

In analysing the figures obtained it must be remembered that some who have expressed a desire for a canteen will not often use it, and the numbers doing so may not at first come up to expectations; on the other hand, if the canteen is well run, they will continue to increase and room must be allowed for expansion. (This is especially the case in a new factory.) There will be many who will continue to want food warmed up for them, and this service should not be refused, but in time they will probably decrease in numbers and

perhaps disappear altogether. There will be some also who will continue to bring food but will supplement it with purchases from the canteen.

The question arises as to who should undertake these enquiries. It will probably be found most appropriate for this to be done from the welfare or labour department. If there is an active Works Council, however, a small sub-committee might be formed which could usefully help to perform this work.

If alternative sites can be used it will be worth considering the desirability of incorporating other amenities such as rest-rooms, welfare offices, recreation rooms, in the canteen building, and also of considering the possible need for future expansion. These points are discussed in Chapter II.

Particular attention should be paid to both the extent and the layout of the kitchen accommodation, including store-rooms and staff rooms. Far too little space is often allowed for these most important parts of the canteen and, even where space is adequate, it is sometimes found in running the canteen that the layout is anything but satisfactory. (See Chapter III.)

Consultation with Experts

In order that all these questions should be considered in their proper relation to one another the management should have the fullest information available before the architect (or it may be the firm's own surveyor) draws up his plans. If there is a works canteen already in existence the opinion of the canteen manager or manageress should be sought on all matters of layout, kitchen planning and service. If there has hitherto been no canteen, help may be sought from some outside organisations specialising in this work. The Industrial Welfare Society is always glad to give information, while guidance on some questions may be secured from manufacturers of canteen equipment and from organisations listed in Appendix I, page 55.

The welfare supervisor, or labour manager, if not responsible for the canteen, will be consulted on its relation to existing welfare activities and on the provision of recreation facilities in the canteen building. Finally, the opinions of the employees themselves should be sought and their representatives be invited to take part in the consultations. By this means the interest and appreciation of the employees will be secured from the start, many helpful suggestions received and unsuspected pitfalls avoided.

Much fuller consideration of the points raised above is given in the body of the booklet. A data sheet suggesting detailed points on which information must be collected is published as an appendix on page 68.

GROUP CANTEENS

One further suggestion may be made here. Where there are a number of small factories close together, consideration should be given to the possibility of providing a joint canteen service. The saving in construction and administration expenses alone by having one large canteen instead of several small ones, and the larger scope thus afforded, may make it possible to provide additional amenities in the way of rest and recreation rooms, etc., which would not otherwise have been possible. This scheme has been tried most successfully on some of the Government Trading Estates, and may well receive further impetus from the needs of groups of small factories engaged on war production.

CHAPTER II

CANTEEN PREMISES

THE success of the canteen will depend largely on the premises in which it is housed. These premises should be designed first and foremost for simplicity of running and adaptability, but they should also be attractive and comfortable. The atmosphere should be that of a club rather than a factory.

Much depends, however, on circumstances within the individual firm, on the number and composition of employees, the site available, the money which may be spent on the canteen, and it is not possible to set up any absolute standard. An attempt is made below to indicate both the minimum accommodation generally considered essential and the additions which may usefully be made where space and finances permit, and to suggest the advantages and disadvantages of various sites for the canteen where choice is possible. In making these suggestions, however, it is recognised that there are canteens which manage to give good service in spite of deficiencies in these respects.

No attempt has been made here to go in detail into technical questions of construction, since these are matters for the expert, but a few suggestions are made which it is hoped may help in considering preliminary questions of building and in the subsequent approach to the expert.

More detailed suggestions have been made on questions of furnishing, interior decorations, etc., in which choice depends less on technical knowledge and more on personal preference, and some details are given on these questions in Appendix IV, page 59.

ACCOMMODATION

Essential Accommoda- tion

The following accommodation should be considered essential:—

1. Dining-room or rooms.
2. Service area.
3. Kitchen.
4. Scullery for washing-up.
5. Storage.
6. Manager's Office.
7. Staff rooms.
8. Cloak-rooms for diners if the canteen is away from the works cloak-rooms.

Dining Rooms

The space required for the dining-rooms will depend not only on the numbers to be catered for at each sitting but also on the size and arrangement of the tables. For square tables, seating four persons, 10-12 square feet per diner must be allowed; for long tables seating 12 or more, with benches instead of chairs, it is possible to manage with 6 square feet per person. The latter figure, however, should be regarded as the absolute minimum to be accepted only where space is strictly limited. The usual practice for works canteens

is to have tables seating six or eight and to allow 8-10 square feet per person. These figures include space for gangways.

Oblong tables for four, seating two on either side and leaving the ends free, require to be slightly larger than square tables but are much more convenient for the diners and require much less space over the dining-room as a whole, owing to the greater freedom of gangways and reduction of waste space. If placed in pairs, with a little space between the ends, they require little more space than tables for eight.

Service Area

In addition to kitchen and dining-room space must be allowed for service. Where there is waitress service provision must be made for a service counter in the kitchen. Where there is counter or cafeteria service direct to customer (whether by hatch between kitchen and dining-room, by a counter in the dining-room or by a service corridor) allowance must be made for the counters, for the assistants and for the diners queuing up. Insufficient space on either side of the counters, or hatch, will result in confusion and slowing up of the service. (The different types of service are discussed on page 26 ff.) For speedy service the counters should not be too short, and should be carefully planned for the service of different dishes, cold and hot, of sundries, and of tea, coffee and other dishes.

Kitchens, Storage and Staff Rooms

The total space required for kitchens, washing-up, storage, staff rooms, manager's office, etc., may be calculated roughly as follows:—

1. For the small canteen serving 100-200 lunches at a sitting (or less), about half as much as the dining-room space or more, say, about five square feet per diner should be allowed. The larger the canteen, however, the smaller the ratio of kitchen space, etc., to dining-room, so that for a canteen serving from 1,000 upwards only three square feet (i.e., one-third of the dining-room space) or even less may be allowed.

2. Where the lunch hour is spread over, calculations for the kitchen itself will be slightly different. If the diners arrive at intervals of 15-30 minutes the space will not be much less than if they were all to be served at the same time, since most of the cooking will be going simultaneously. Where there are two distinct services, say, at 12 o'clock and 1 o'clock, all the washing-up equipment and much of the cooking equipment will be utilised for both services; kitchen space can be calculated on a *per capita* basis of about one and a half times the number served at one sitting (e.g., 100 at each of two sittings has kitchen space calculated as for 150). Storage, manager's room, staff rooms, etc., will be based on the total number served, whether the service is spread over or not.

3. Further, if there is a large number of employees who bring their own food into the dining-room and who buy only tea or snacks, the kitchen space allowed for them will not be so great as that for people taking a full meal.

The following points may also be noted:—

1. Kitchen.—In large canteens separate pastry kitchens should be provided and possibly a separate room for the preparation of salads and cold dishes.

2. Washing-up. This should take place in a separate scullery or, at least, a section partitioned off from the kitchen. There should also, if possible, be a separate vegetable scullery with preparation equipment, peelers, chippers, etc.

3. Storage must be provided for dry goods and for fruit and vegetables, and there should be cold storage for meat, fish and dairy produce. For a very small canteen a good-sized refrigerator may be sufficient; for a larger canteen a cold storage room is necessary, and for a very large one it is advisable to have one room for meat and fish and one for the dairy produce. Special storage must be provided for mineral waters, possibly in the form of a pent-house outside if the canteen is on the ground floor, and room must be allowed for empty bottles.

4. Manager's Office.—This may, if desired, have a window overlooking the kitchen, but it should be properly partitioned off so that it is free from the heat and noise of the kitchen.

5. Staff-rooms.—Cloak-rooms must be provided for the canteen staff and a separate dining-room added, if possible, where they may have meals and rest in comfort.

6. Cloak-rooms.—If the canteen is some distance from the works cloak-rooms it is necessary that lavatories and washing facilities should be provided on the canteen premises. These should back on to outside walls to obtain natural ventilation.

Recreation and other Facilities

In addition to this essential accommodation other facilities such as rest rooms and games rooms may usefully be provided if space and financial considerations permit.

These facilities may consist simply of the planning of the dining-room so that it can be used for concerts and dramatic performances, with stage and dressing rooms, and perhaps a space at one end for such games as table-tennis and darts.* If one or two extra rooms can be added a comfortable lounge and a billiards and games room will be greatly appreciated—indeed, if the meal is served in relays and employees may not spend the whole hour in the dining-room, a lounge should be regarded as essential. If the site allows, a sun terrace adds greatly to the amenities of a canteen, and even if the canteen is on an upper floor it may be possible to have a balcony or roof garden. Where the canteen is incorporated in a social centre there may be a separate dance or concert hall, a library, club rooms and perhaps a gymnasium, with showers. If the premises are to be used for public entertainment (for concerts, dances, etc.), special cloakrooms and lavatories must be provided.

If there is a bar, special cellarage must be arranged, and it is necessary, before the plans for the canteen are passed, to consult an expert, possibly the brewer who will supply the canteen.

Finally, where a new building is designed for the canteen or social centre, it may be found convenient to include in it the welfare offices. Thus one firm recently included in its new social centre not only canteens and recreational facilities but welfare offices, surgery, bathrooms and day-continuation school.

Note.—In considering the provision of recreational facilities reference might be made to the Industrial Welfare Society's booklet, "Recreation in Industry."

SEPARATE DINING-ROOMS

It is necessary to consider the advisability of providing more than one dining-room. It is the usual practice to provide separate dining-rooms for works and staff employees, particularly in the heavy industries and where there are dirty processes. The men on these processes often prefer to have a small mess room to themselves close to their work.

Foremen

Separate rooms for the foremen and forewomen, where they may relax away from those whom it is their duty to supervise during working hours, are usually very much appreciated. (If this is not possible, separate tables may be set aside.) On the other hand, it is the policy in some firms to-day to encourage the breaking down of departmental barriers, and a number of canteens exist with a single dining-room for all staff. Others have two rooms, one with cafeteria service and one where a slightly higher charge is made, with waitress service, but both open to all employees. Whatever policy is followed it is usual to have separate rooms for directors and visitors.

*If it is intended to give cinema shows in the hall, a separate projector's room, fully enclosed, should be provided, so that flam. films may be used. Some space, possibly under the stage, should be allowed for the stacking of tables and chairs not required during games, dances or entertainments.

Men and Women

It was the custom formerly to provide separate rooms for men and women; where the men are engaged in dirty processes this may be necessary, but it is not the usual practice to-day. Where there is only a small proportion of female labour the girls may use the staff dining-room. In a few canteens separate tables are set aside for the women.

Mess-room

In most works a large number of employees will continue to bring their own food and seating accommodation must be provided for them, together with facilities for buying hot and cold drinks, fruit, chocolate and other "extras." Where arrangements are made for warming up food brought or for employees to make their own tea, it may be found advisable to provide this service in a separate room. But usually it can be incorporated in the general canteen service, either in a separate mess-room or in the canteen. Ample provision must be made for the disposal of waste paper, uneaten sandwiches, fruit peelings, etc. If possible, separate receptacles should be provided for the waste food, as it forms a valuable feeding stuff if kept dry.

SATELLITE CANTEENS

A number of industrial plants, especially those engaged on armament work, cover a very large area and units of workers are scattered far distant from any single central point. It may therefore prove quite impossible for many of them, even the majority, to make use of a central canteen during the breaks for meals. It is most desirable that they should not therefore be denied the hot meals they want and need, and a system of satellite canteens is the best means of overcoming the difficulty. It is necessary to establish a number of dining-rooms at convenient points through the works, where units of workpeople can feed and relax in comfort during meal breaks. These dining-rooms should be equipped to serve light refreshments, teas and other drinks, but they should also have hot cupboards which can be stacked with hot food cooked at a central kitchen.

The size of the individual dining-rooms will be determined by the numbers who will use them in any one locality on the plant. Some may be very small, while others cater for substantial numbers. They should, however, always be so arranged that the meal break offers opportunity for relaxation in comfort as well as the taking of a good hot meal. For reasons of expense, both in equipping kitchens and in staffing, the expedient of having several dining rooms served by a single large kitchen, will commend itself. Food may be transported in insulated motor or other vans or containers to the various hot counters and served there. The dining-rooms will thus need to be equipped with hot cupboards, a supply of crockery and cutlery, with sinks for washing up and tea-making apparatus of some kind. By staggering the meal break in the different parts of the works the strain on the central kitchen may be lessened and serving staff be transferred from one dining-room to another. These and similar details of organisation will, however, be determined by local needs and circumstances. The main point to be borne in mind is that hot food should be made available to both day and night shifts at all parts of the works, and satellite canteens in many cases will prove the most economical and quickest means of achieving this end.

LAYOUT

The layout of the canteen will depend both on the accommodation provided and on the type (or types) of service chosen. (See page 26, Chapter IV.)

Kitchen and Dining-rooms

Unless the site makes this quite impossible, the kitchen and dining-rooms must adjoin. This is necessary not only for hatch service but for all types in order to eliminate the labour of transporting the food, the danger of its becoming cold in transit and the necessity of keeping it for long periods in hot counters. If there is more than one dining-room it may be possible to plan them on two or three sides of the kitchen so that there is direct access from the kitchen to each dining-room. If it is not possible to do this it may be best to have the kitchen immediately above or below the dining-rooms or, alternatively, the kitchen and one or more of the main dining-rooms adjacent and the rest just above or below. The food can then be conveyed in hoists. A service counter must be provided in each place and washing-up facilities are also desirable for any but small numbers.

Service Counter

It is important both to allow a sufficient length of service counter (see above, page 11) and to avoid having any part of the dining-room at too great a distance from the counter. Where there are difficulties in achieving this owing to the nature of the site, various devices may be adopted in order to give greater length of counter. It may be possible, for example, for the kitchen to project into the dining-room so that the service counter may be placed on two or even three sides of it. Or the counter may be along two sides of the dining-room.

Partitions

Whether the service is direct from the kitchen by hatches or from counters in the dining-room, the partitions between kitchen and dining-rooms should reach to the ceiling. Where there is more than one dining-room, or a dining-room and games-room, it is often found convenient for these to be divided by movable partitions which can be folded back for social functions.

Scullery and Store-rooms

The scullery for washing-up and storage of crockery should be partitioned off from the kitchen and should, if possible, have direct access, through hatch or door, to the dining-room, so that it is not necessary for the crockery to be carried backwards and forwards across the kitchen. Store-rooms should have direct access to the goods entrance if possible, and if the kitchens and store-rooms are not on the ground floor there must be a goods lift. Vegetables should have their own store and preparation scullery adjacent.

Cloak-rooms

Cloak-rooms should be near the entrance and on either side of the hall.

SITE OF CANTEEN

The canteen may be:—

- (a) Part of an existing factory building adapted for the purpose.
- (b) Included in the plan of a new factory building.
- (c) An extension of an existing factory building made especially for the purpose.
- (d) A separate building specially designed for the purpose or part of a specially designed social or welfare centre.

ADVANTAGES OF SEPARATE BUILDING

Separate Building

1. The canteen is away from the noise, smells, vibration and atmosphere of the works; this is especially advantageous if there are continuous processes or a spread-over of the lunch hour.
2. If there are several factory buildings the canteen should be placed at a more or less central spot easily accessible to all.

3. A separate building is more convenient if recreational facilities are to be included, especially when the public is to be admitted to concerts, dances, etc.
4. The danger of kitchen smells permeating the factory and offices is obviated.
5. Since employees are obliged to go out to the canteen they are encouraged to take advantage of fine weather to remain outside for a time.
6. The separate canteen building can be built to contrast with the factory atmosphere.

ADVANTAGES OF INCLUSION IN FACTORY BUILDING

Internal Canteen

1. It may take less time to reach the canteen, especially in bad weather when it might be necessary to fetch coats, etc., to go to an outside canteen.
2. The internal canteen is usually less expensive in site and construction.

Situation of Canteen within Factory

If the canteen is situated inside the factory building it must be easy of access from all departments, not too far from the cloak-rooms and reached by wide passages and staircases, so that there is not undue congestion when the hooter sounds. Where the canteen is on the ground floor it is possible to have large doors which may be thrown open in hot weather, and perhaps a terrace where food can be taken in the summer. The top floor, on the other hand, may afford a site which can be completely shut off from the shops, is light and may have a better outlook. It may be possible, also, to make a roof garden.

Separate Canteen Buildings

If there is any choice in the selection of a site for a canteen building or recreation hall, accessibility is of paramount importance. The site may or may not be entirely suitable, but the following features should be considered:—

1. A building at a short distance from the factory so as to make a complete break from work.
2. Open space surrounding canteen for flower beds, sitting outside in summer, and informal games.
3. The position of gas, electricity and water mains, and the drainage system and the possibility of utilising steam from the factory for cooking and heating.
4. Central position if there are several factory buildings.
5. Sunny aspect for the dining-rooms and north for the store-rooms and kitchen.
6. Position with regard to possible future extension to factory buildings.
7. The dining-room, kitchens, etc., should be on the same level. The extra cost of including a second storey with recreation and club-rooms, etc., is not great in proportion to the whole.

INTERNAL CONSTRUCTION

There are a number of extremely important internal features of the canteen, such as heating, ventilation, flooring, which are closely related to the structure of the premises and should be considered with the architect, works surveyor or appropriate specialist at an early stage in the planning of the canteen. Most of these are not only highly technical matters but matters in which each canteen will present its own problems; no attempt has been made therefore to go into them in detail, but consideration has been given to a few of the more general aspects in the hope that this may help the management representatives in their discussions with the experts.

The Canteen Ceiling

Lofty ceilings are desirable for the better ventilation of the canteen. In a single-storey building or on the top floor the ceiling can be treated as a single span to avoid columns. If the roof is of the truss type it should not be left exposed but have a false ceiling, both for the sake of appearance and because of lighting.

LIGHTING

Even where the canteen will be used for only a few hours in the middle of the day, good lighting is important, both for the comfort of the diners and for the comfort and efficiency of the canteen employees.

Daylight

In all parts of the canteen the maximum of window space should be allowed. Roof lights will be inappropriate in war unless special blinds are fitted. Good daylight is important, not only because it is pleasant and healthy for those using or working in the canteen, but because it quickly shows up anything that is not perfectly clean.

Artificial Lighting

1. Dining-rooms.—If used merely for daytime meals, artificial lighting will be needed only for very dark days, and should be simple but efficient. If evening or night meals are served, or there are social functions to be considered, a more elaborate lighting scheme will have to be designed.

Level of Illumination

The level of illumination should be from 6 to 10 foot-candles and might be provided by enclosed fittings of decorative glass, or panel glass fittings, or by concealed lighting. New forms of lighting are continually being devised which are not only decorative but result in a considerable saving of electricity, and it is worth consulting lighting experts before deciding on the type of installation. Industrial flood-lighting should be avoided.

Stage Lighting

Where there is a stage in the dining- or recreation-room provision should be made for special stage lighting, footlights, etc., and for dimming the general lights. Plug points should be installed for a lantern and cinema projector (see page 12).

Kitchen Lighting

2. Kitchens.—Good light, evenly distributed, is essential in the kitchen, and it may be necessary to supplement the light from the windows in the daytime. In a single-storey building or a top-floor canteen a lantern roof will be found effective, provided it has blinds for complete darkening at night time. The illumination aimed at should be from 6 to 10 foot-candles, and it will usually be found that this entails 200-watt fittings, spaced about 10 feet apart and mounted about 9ft. 6in. above the floor. Totally enclosed fittings of good quality diffusing glass and white enamelled galleries, or what are known as standard diffusing fittings, will be found suitable. It is desirable to plan for lights inside canopies over the stoves to give special, directional illumination at these vital points.

There have been a number of new developments in lighting during the past few years and consultation with lighting experts may result in better lighting, more pleasing effects and saving of electricity or gas.

Advice on lighting may be had from the following:—

The Electric Lamp Manufacturers' Association of Great Britain, Ltd.

Lighting Service Bureau, 2 Savoy Hill, London, W.C.2.

British Commercial Gas Association, 1 Grosvenor Gardens, London, S.W.1.

Illuminating Engineering Society, 32 Victoria Street, London, S.W.1.

Manufacturers of lighting equipment.

HEATING

Temperature

In heating the canteen a uniform temperature of 62-68 degrees Fahrenheit in all parts should be aimed at, but the room should be rather cooler at the commencement of the meal, as the temperature will rise while the meal is in progress. The exact form of heating chosen will depend partly on the size, shape and level of the canteen and partly on the nature of the fuel supplies readily available.

Aim of good Heating

The heating chosen should give an even distribution of heat and care taken not to produce a stuffy atmosphere at head level while the feet remain cold. Radiators should usually be placed near windows, not too close to tables, and no apparatus should be placed in the main floor space. In large rooms where centre heating is needed it may be possible to have panels in the ceiling or in

the sides of columns. Pipe ducts across the floor and the suspension of heating pipes from the ceiling should be avoided. Information on suitable types of heating systems and fixtures should be obtained from experts.

VENTILATION

Dining-room

Closely related to the heating of the canteen is ventilation. As far as the dining-room is concerned this is largely a question of provision for the winter when the artificial heating is on but too many open windows might cause draughts. A high ceiling ensures a good reserve of fresh air at the commencement of the meal and, as the air in the canteen is not being used up all day but only during mealtimes, a thorough airing of the room before and after meals will go far towards solving the problem. Special problems will arise through black-out arrangements at night, and it is most important that the works engineer or other expert be called in to see that adequate arrangements are made so that the atmosphere does not become intolerably hot and stuffy during night shifts.

For additional natural ventilation during the winter the hopper type of ventilator at the top of the windows is generally found suitable, as it prevents a down draught, but vent ducts should also be plentifully provided. Windows should be as large and as frequent as possible, both for light and for ventilation. The casement type is usually found the best for the latter purpose.

Electric Fans

For the large canteen, where additional ventilation is required in the centre of the room, electric fans may be operated or, if artificial ventilation is being installed in the kitchen, it may usefully be extended to the dining-rooms. It is important that mechanical ventilation apparatus should be installed, if possible, during construction in order to avoid the inconvenience and unsightly results caused by installation after the canteen is finished.

Kitchen Ventilation

Adequate ventilation of the kitchen should be regarded as most important, since it keeps the kitchen free from excessive heat and smells, and vitally affects the comfort of the kitchen staff. To this end mechanical installation will usually be found essential. Deep fat frying in particular calls for special ventilation, as the oil-laden fumes are heavier than air.

Kitchen ventilation is usually in the form of hoods or canopies over the cooking apparatus linked up to the ducting system and eventually to a motor-driven fan. Where the kitchen is divided into several compartments branch ducts will have to be carried through. In some works the kitchen system is linked up with that of the factory, but this may involve the risk of cooking fumes finding their way into other parts of the building owing to unexpected "baffling back."

It should be noted that where artificial ventilation is installed for the lavatories, the sanitary authorities in most districts will insist on a completely separate extract from that serving the kitchen and dining-room.

Appendix IV, page 59, deals with flooring, decoration and furniture.

CHAPTER III.

THE KITCHEN

THE kitchen is the workshop of the canteen and, if the latter is to be run smoothly, efficiently and economically, both layout and equipment must be carefully planned. First, the kitchen should be as conveniently placed as possible in relation to the dining-room and to the store-rooms (see page 14). If new premises are being provided it will be the task of the canteen manager—or other person responsible for the planning of the kitchen—to discuss this with the architect and to see that he has the necessary information placed before him (see below). Often, however, existing premises, not always of the most convenient kind, have to be adapted, and the canteen manager will have to make the best use he can of them. Secondly, the kitchen premises themselves must be laid out to the best advantage and the equipment arranged in the most convenient and labour-saving way. This layout must be carefully planned in advance since it cannot easily be altered once the canteen is finished. Finally, the most suitable equipment in quantity, in quality and in type, must be chosen for the particular needs of the canteen. See Appendix VII on page 69.)

Preparation of Data

Before the final planning of the kitchen premises can be done a considerable amount of data must be assembled and discussed with the various persons responsible for the canteen. The collection of information as to the numbers and types of persons likely to be using the canteen has been discussed in Chapter I and the provision of essential accommodation in Chapter II. An outline of the various types of service and of possible auxiliary services will be found in Chapter IV. In addition, however, careful information should be prepared as to the various types of cooking fuel which might be used and the cooking and other equipment which will be necessary.

SIZE AND LAYOUT

It is customary when calculating the seating capacity of a dining-room to allow 8-10 sq. ft. of floor space per head. Kitchen space cannot be determined so accurately, but 3 sq. ft. of floor space per head will be found to give an average estimate for canteen kitchen requirements on a straightforward site with convenient access to the dining-room and the goods entrance and assuming that planning is good. Qualifications altering this size are given on page 11.

This estimate includes storage space, and wash-up, also space for hot closets where these are in the kitchen. Where there is an elaborate servery, additional space will be required for it. Additions must be made, too, for an office for the manager and cloakroom accommodation for the kitchen staff.

Shape of Kitchen

The shape of the kitchen will depend largely on the site, and is not of first importance, provided the space is adequate and good use made of it. A rectangular site is generally considered the easiest to plan, but the aspect of the dining-room and means of access to the kitchen will probably be the deciding factors. A T, L or E-shaped kitchen can be planned to advantage, and examples

of various irregular shapes successfully planned could be given, but it must be emphasised that these are the outcome of circumstances and not chosen sites. Suggested layouts for kitchens are printed on pages 57 and 58.

No hard and fast rules are recommended, but the aims of good planning are:

Essentials in Planning

1. To provide sufficient convenient storage accommodation for:—
 - (a) The delivery of goods without traffic across the kitchen
 - (b) Stock and daily supplies in the kitchen.
2. To provide enough working space for the staff engaged in preparing the food or clearing up. The importance of efficient removal and handling of dirty crockery should not be overlooked.

A useful guide when deciding whether table space for the preparation of food will be adequate is to see that it is not less than 10 per cent. of the total floor space. This figure is exclusive of draining boards adjoining vegetable, pot or washing-up sinks.

3. To see that cross-traffic is avoided by making complete working units or work centres.

Movement is reduced and work simplified if workers have the apparatus and equipment required for their special work grouped together, with adequate table space adjacent. This can be arranged even when all cooking equipment has to be together in the centre of the kitchen.

In very large kitchens the usual practice is to provide rooms for the preparation of pastry, meat, vegetables, washing-up, and scullery work. The system can be adapted for smaller kitchens by dividing the main kitchen into bays by partitions of convenient height. These partitions increase the wall space, which is often an advantage, as utensil racks, etc., can be fitted at the place where most needed.

4. If possible, the route of the food as it is prepared and cooked should always be towards the servery. It is at the service counter that the greatest care should be taken to avoid confusion caused by staff getting in each other's way.

5. To ensure that there is good passage space where required, and this needs to be increased considerably if the space includes the place where a worker habitually stands.

6. Good ventilation and lighting. The removal of cooking odours from the kitchen.

CHOICE OF FUEL

The following types of fuel are available for canteen cooking:—

Anthracite
Coal
Coke
Electricity
Gas
High pressure hot water
Live Steam.
Oil.

Choice will depend partly on the size and type of canteen and partly on the fuels most easily and cheaply available, but before a decision is made the following points should be carefully considered:—

Factors in Choice of Fuel

1. The cooking is usually limited to five days a week. The cooking is not spread evenly over the day but is generally a peak load just before the service of meals.
2. The cooking capacity of the appliances in relation to the floor space it will occupy should be calculated. Space required for fuel storage, meters or switch gear should not be forgotten, as these are an essential part of the equipment.

3. Ease of operation is especially important in a canteen. Appliances should be fool-proof, adequate for the work required, and straightforward in use. If good results cannot be obtained easily there is a likelihood of the appliances being misused, which may increase the fuel consumption unnecessarily or lead to a heavy bill for renewals or maintenance, or be the cause of avoidable accidents.

4. Capital and maintenance costs and depreciation should be considered collectively. A long, healthy life-span may be found to justify high initial cost. Care should be taken, however, particularly where the outlay is limited, that the service value is considered and that money is not spent unjustifiably on apparatus which differs only in external finish from less expensive types.

Fuel Costs

5. Running Costs.—Estimating the cost of fuel is a difficult task, and although not impossible, may be fruitless unless undertaken with full knowledge of the individual case.

Many estimates are available, but analysis may show that the figures do not apply to the whole cooking load, or that the type of cooking differs. Figures based on boarding school or hospital catering give a lower fuel cost per head per meal than can be expected in a canteen where there is more choice of food, and the service has to fit industrial requirements.

Such an increase is not, of course, confined to fuel costs but is shown in proportionately higher wage and food bills.

When the canteen is operating the cost of fuel is small in relation to other expenses, but the arrival of a bill for gas or electricity or coal for three months is apt to make fuel rather a prominent expense.

Economy should, of course, be practised, but not to the extent of saving fuel and wasting something that may cost still more, such as time, or ingredients.

A large bill should be analysed carefully before it is condemned, and if there has been waste it should be traced to its source, which may sometimes prove to be unexpected. In most canteens the meters are read at regular intervals, and variations in consumption tally with an increase or decrease in the numbers served.

Comparative Costs of Fuels

The prices of all fuels vary to such an extent that it is impracticable to make more than a general comparison. Gas or electricity are supplied on specially favourable rates to catering establishments. A sliding scale reducing the price per unit or per therm as the consumption rises will give a lower average price if one fuel is used exclusively. If a particular fuel is used in the factory it may be possible to supply it at low rates to the canteen. The price of fuel for cooking may also be affected by the use made of it for heating, lighting and other purposes in the canteen.

Many tables of comparative fuel costs have been prepared, but their validity must depend on the types of apparatus used and the way in which they are used. Theoretically, as between gas and electricity, one therm of gas equals 100,000 British Thermal Units, whereas one unit of electricity equals 3,412 British Thermal Units.

A pound of anthracite equals 14,500 B.T.U.s and a pound of coke some 12,000 B.T.U.s. Such a set of statements, however, is of little help unless full allowance is made for relative heat efficiencies of different types of fuel and apparatus. The important points to know therefore are the comparative prices of fuels expressed in thermal units and the percentage of heat actually used for cooking, water boiling, etc., in the apparatus under consideration. Consulting

heating engineers, catering equipment manufacturing companies, and gas and electricity supply companies will give help on these matters. Final choice of fuel will not be determined by cost alone, but, as already stated, simplicity and cleanliness in running, reliability, capital and maintenance costs and personal preference will also have their influence. The following brief notes outline some of the advantages and disadvantages of different fuels, and these points, though obviously incomplete, may be helpful to those without wide experience in discussion with the expert.

Gas Cooking

GAS COOKING

ADVANTAGES

1. Heat is flexible and with its visible flame can be controlled more exactly than other fuels for simmering, boiling, frying, etc.
2. Full heat is available immediately gas tap is turned on. There is no period of waiting for hobs, etc., to "warm up."
3. Utensils can be of any type. There is no need for ground bottom pots or specially heavy saucepans.
4. Gas apparatus is simple to use and requires no special knowledge to give satisfactory results.

DISADVANTAGES

1. The heat escaping from apparatus may lead to over-heating in the kitchen.
2. In most gas apparatus, burners have to be separately and carefully ignited with externally applied match or taper.
3. Burners must be regularly cleaned both to maintain highest efficiency and to ensure complete combustion.

Electric Cooking

ELECTRIC COOKING

ADVANTAGES

1. The appliances are highly efficient and little heat escapes into the kitchen.
2. Use can be made of residual heat in ovens when switches have been turned off.
3. Electricity gives heat without combustion and no ignition is necessary.
4. The cookers are easily cleaned and clean in use.

DISADVANTAGES

1. Electric boiling plates usually require the use of special flat-bottomed utensils, which are expensive but durable.
2. As the heat is not visible, manipulation is not always immediately understood and waste may result.
3. Electric elements may need replacement at more frequent intervals than other types of burner.

Steam Cooking

STEAM COOKING

Steam cooking is inexpensive where steam is available from the factory boilers, and for large numbers the installation in the canteen of a special boiler should be considered, after examining relative costs of alternative forms of heat. It may be used for boiling greens, soup and meat in steam-jacketed boiling pans; for steaming potatoes, fish and puddings in wet steam ovens; for boiling water for tea, coffee and other purposes; for heating carving tables, bain maries, hot closets and the counters for service. Pressure should be at about 15lbs. per square inch, except for wet steam ovens, where it should be 5 lbs. per square inch.

Hot closets should be heated by wrought steel steam pads or copper coils. In cafeterias, from one-third to one-half of the counter should be steam heated.

ADVANTAGES

1. Where steam available, low fuel costs.
2. Liquids are brought very rapidly indeed to boiling point.
3. Maintenance costs are low.

DISADVANTAGES

1. Valves are often less efficiently operated than controls on other forms of heat as considerable experience is required.
2. Steam cooking can meet many but not all canteen requirements, and low fuel costs may sometimes be partly offset by higher tariffs for gas or electricity.

HEAT STORAGE COOKING

Heat Storage Cooking

ADVANTAGES

1. Independence of gas or electricity supply prevents possibility of failure.
2. Fuel cost is low on average comparisons.
3. Maintenance costs are low.

DISADVANTAGES

1. Heat storage cookers cannot meet all needs in a large canteen, e.g., hot cupboards, etc.
2. Refuelling twice daily and relighting after week-ends may involve an added labour cost.
3. Overall space, including space for storage of fuel and for flues, is greater than for alternatives.

Appendix VII, on page 69, gives suggestions for cooking apparatus needed in canteens of different sizes, with rough indication of average cost, and gives details of auxiliary equipment which may be required in the kitchen. A list of suppliers will be found on page ix.

CHAPTER IV

MANAGEMENT AND SERVICE

ONE of the first questions which must be decided is whether the responsibility for the canteen is to be retained by the firm. Four methods of control are possible:—

1. Manager or manageress appointed by, and responsible to, the firm.
2. Control by the Labour or Welfare Department.
3. Employee control.
4. By contract to outside caterers.

MANAGER APPOINTED BY THE FIRM

*Manager
Appointed by
the Firm*

The majority of firms prefer to appoint their own manager—and retain full responsibility for control within the firm.

ADVANTAGES OF APPOINTMENT BY FIRM

1. The canteen is under the direct control of the firm in policy, price fixing, extent of services, etc.
2. It can be operated as part of the employee services under the general labour and welfare policy of the firm.
3. There can be greater flexibility in day-to-day administration.
4. The staff employed in the canteen is controlled by the firm's labour policy, and arrangements for supplementing the canteen staff in rush periods from women employees in the works can be facilitated.
5. The canteen is a practical expression of the interest of the firm in the comfort and well-being of their employees, and a means of contact which contributes to co-operation.

The manager or manageress appointed by the firm engages his own staff and is entirely responsible for the canteen, subject, of course, to his carrying out the general policy of the firm. He is appointed by, and responsible to, the management and will be required to present at stated periods accounts and reports on the canteen services.

LABOUR OR WELFARE DEPARTMENT CONTROL

There are definite advantages in placing the responsibility for canteen services in the hands of the labour or welfare manager who is in a position to assess the demands for canteen services in any circumstances, i.e., to arrange special prices for juveniles, diets in co-operation with medical requirements, shift work and overtime demands. The close co-operation between the Labour and Welfare Department and the canteen supervisor will ensure that the employees are obtaining the full services which the conditions of their work may demand.

EMPLOYEE CONTROL

The canteen is sometimes controlled by employees themselves who appoint the manager and determine the policy. The control is usually vested in the

Works Council or a specially elected Canteen Committee, or the canteen may be a sub-section of the social and recreation club. In these cases it is usual for the firm to provide the accommodation and equipment, and they may also bear a proportion of the overheads. The firm in this instance require the canteen accounts to be presented monthly. If the Works Council is operating effectively this method may be highly successful. It is wise, however, to protect the manager and his staff from undue interference in carrying out their day-to-day duties.

OUTSIDE CATERERS

Under the usual contract the firm provides accommodation, furniture and heavy equipment, and continues to maintain the premises and replace the heavy equipment. The firm may also supply the initial light equipment, i.e., utensils, crockery, cutlery, etc.

The canteen contractor appoints a manager or manageress and is responsible for the food, maintenance of light equipment, heat, light and staff. In certain circumstances the firm may pay heat and light charges. In a very small canteen, where the turnover is insufficient to meet all the labour costs, the firm may even contribute to the manager's salary, but this is not a frequent practice. The caterer covers the usual services including the "warming-up" of food brought by the employees.

The manager appointed by the caterer should carry out the policy of the firm and the wishes of the employees through co-operation with some responsible officer, such as the labour manager or welfare supervisor, or with the Works Council or Canteen Committee if one exists.

ADVANTAGES OF CONTRACT CANTEN SERVICE

The chief advantages claimed for the employment of the outside caterer are:—

1. The firm is relieved of the possibility of financial loss.
2. The canteen from the beginning derives the benefit of the experience of a large-scale organisation specialising in catering.
3. In the event of the manager or other member of the staff leaving, falling ill or going on holiday, a substitute is immediately available.
4. The central buying department of the catering contractor buys much of the raw materials at prices which cannot be obtained by the individual manager of a canteen. Further, by comparison with market prices and with prices paid in other districts, a check can be kept on local prices.
5. Similarly, comparison with other canteens enables a check to be kept on quantities of goods used and waste eliminated.

CANTEN COMMITTEES

If the canteen manager is genuinely anxious to satisfy the needs of the employees he will usually find it helpful to have an advisory Canteen Committee. This committee, which may be a sub-committee of the Works Council, or elected directly from the different departments, can explain the needs of the workers, transmit and help to investigate complaints and suggestions regarding service, dishes liked or disliked, cooking, prices, portions, etc., and convey to employees the reasons for meeting or refusing requests. It may usefully co-operate with the manager if there are recreational activities to be catered for and deal with cases of untidiness, unpleasant behaviour or wilful damage in the canteen. The existence of a committee may also give the employees an

interest, and a sense of proprietorship, in the canteen and faith in the disinterestedness of the firm in establishing it.

SERVICES

The canteen should be planned to provide all the meal requirements for employees at their work, and this may be limited to the mid-day meal or may extend to breakfast, mid-day meal, tea, refreshments during rest pauses, meals for shift and night workers, facilities for employees bringing their own food, packet meals for transport workers and canteen stations in remote and scattered departments, as well as refreshments for social and recreational activities.

AUXILIARY SERVICES

“Warming-up”

In the past the majority of workers have been accustomed, unless they worked very close to their homes, to bring their food with them, and many firms have afforded facilities for heating this food. The canteen manager will naturally hope to induce these workers to buy their food from the canteen, as this service involves labour and heating costs for which it is usual to make no charge. There will always be a proportion of employees, particularly the lower-paid workers who will need this service. Economic conditions in the home may make it impossible to allocate even a small sum from the household budget to the purchase of canteen meals. It is essential, therefore, that this service be freely given and facilities provided for tea-making, although it is now customary for employees bringing their packet lunches to supplement this food by coffee, tea, and other items bought in the canteen.

Rest Pauses and Trolley Services

The rest pause or “break” has become very general, and in this period it is desirable that tea, coffee, milk, fruit, rolls, chocolates be obtainable. If it is easily accessible the employees obtain this refreshment in the canteen, but if the factory is large and departments scattered, these refreshments must be supplied at the bench. The usual method is by trolley service, the trolleys equipped with urns or teapots, mugs, etc. Although this method involves a good deal of organisation and labour it is one which can be completely successful. By spreading over the “break,” each trolley can be made to serve several departments. Some large firms have found it necessary to establish “tea stations” built with tea-making apparatus, crockery, washing-up facilities, and a small store at a number of easily accessible points in the works. The initial expenditure for these stations is high, but it is calculated that the saving in time and labour costs more than compensates for this outlay.

Satellite Canteens

Where the departments are scattered over a wide area it is necessary to provide satellite canteens or canteen stations, as described on page 13.

Lunch Trolleys

Packet lunches made up in the canteen are taken to different points in the works on trolleys or waggon, particularly where there are continuous processes, and the meal break is a short one. It is difficult in these circumstances to make much provision for comfort during the meal breaks, but where it is possible, chairs or benches should be provided.

Snack Counters

There is a very real demand for light lunches in some industries, and where it is possible, a snack counter should be provided in the canteen on the lines of the modern cafeteria-snack-bar, where these lunches may be served quickly.

Breakfasts

Where employees live at some distance from the works the service of breakfasts may be appreciated, and it is a common practice for the canteen to be opened twenty minutes before the start, during which employees can obtain tea, coffee, etc., and a snack or a full breakfast. The provision at little or no cost of something nourishing before work (e.g., cocoa, milk, bread and butter), is particularly valuable to young workers who have a habit of leaving home, in many instances, with very little more than a cup of tea.

Overtime Teas

Provision for overtime teas must be considered in planning the canteen services. Where staff workers are engaged on unpaid overtime a free meal is often provided by the firm.

Shift and Night Workers

The provision of meals for shift and night workers is becoming an increasingly urgent need, especially where workers are on night work for considerable periods. It is often found that men working at night like a meal similar to their ordinary mid-day dinner, but lighter dishes may be preferred, especially by women, and should be available. Workers can very often take a break of only about half-an-hour at a time, and arrangements must therefore be made for very rapid service if they go to the canteen. Many workers will want snacks or supplements to food brought from home. Soups and hot drinks or milk can be taken round the works in urns on trolleys in the same way as tea in the afternoon, or can be served with sandwiches, pies, fruit, chocolate, etc., from departmental kiosks.

Transport Workers and Contractors' Men

Lorry drivers, etc., coming to the works and employees of contractors working on the premises should be allowed to use the canteen. Such permission can be both a boon to the men themselves and a courteous gesture to the firm employing them.

Social Functions

The canteen should be in a position to fulfil any demand for refreshments and meals in connection with the firm's recreation activities, especially if these take place in the dining-room or the canteen is incorporated in a social centre. In some firms the canteen caters only for special functions, e.g., dinners or dances run by a recreation or sports club; in others, where it is incorporated in, or co-operates with, the recreation clubs, it may be open for light refreshments whenever the club is open, or even cater for the sports clubs at the week-end. In a large firm it may be worth while installing a soda fountain.

Miscellaneous Sales

Cakes, buns, meat pies made in the canteen kitchen or provided for the meal services are also sold over the counter. The availability of food which can be purchased for consumption elsewhere is sometimes a boon to workers who find the day-to-day shopping for food difficult either owing to the hours of work or to the inaccessibility of the shopping centres from their homes. These sales, as well as sales of cigarettes, chocolate, etc., can be a good source of profit to the canteen.

License

Many canteens in heavy industries are licensed for the sale of alcohol. Others obtain a special license for functions only, but in the majority of canteens, it has not been found necessary to obtain a license.

METHODS OF SERVICE

The types of service possible in the canteen overlap to some extent, but they may be considered under the following main heads:—

1. Hatch service.
2. Cafeteria and other counter service.
3. Waitress service.

In deciding the most suitable type of service the most important considerations are labour costs and rapid flow of meals. Attractive presentation of the food (with ease of choice if there is variety) and the habits and tastes of the employees must not, however, be neglected. In an existing building the space which may be devoted to counters and the servery will condition planning and layout.

HATCH SERVICE

The simplest form of service is through hatches directly connecting the kitchen and the dining-room. The diner collects his food already assembled on a plate and carries it to the table. The kitchen staff prepare the plates of food on service tables placed between the hatches and the cooking apparatus, and in large canteens this will be done well before the arrival of the diners and the plates stacked in hot cupboards beside the hatches. Separate hatches are used for the service of different dishes to prevent congestion and confusion. Thus one hatch may serve the main hot dish, a second cold dishes, and a third sweets and sundries, while tea and other drinks would be obtained from a separate tea counter. For large numbers the whole service would be duplicated and a further division in the arrangement of the hatches be made. Notices show clearly which dishes are served at which point.

Hot Cupboards

It is important that if food is kept in hot cupboards it is not allowed to dry up or to become lukewarm. Thermostatic control, keeping the hot cupboards at some 180 degrees fahrenheit, is desirable. Hatches should be kept closed except during service to prevent odours from the kitchen penetrating into the dining-room. Efficient kitchen ventilation would overcome this problem.

Separate Servery

A number of variations can be introduced elaborating the simple hatch service. Thus in many canteens a separate servery connected with the kitchen by swing doors, is used for portioning or serving. Cold dishes and sundries may be displayed on a special counter and served independently from there. Queue rails may be installed to separate the different hatches in the dining-room. These and many other possible arrangements should be fully discussed with the architects and with those responsible for the installation of equipment.

This method of service has the advantage of clearing customers very quickly into the dining room, but precludes any display of foods and is only suited to a limited number of set dishes.

CAFETERIA AND OTHER COUNTER SERVICES

The second main type of service is similar in principle, namely, that the diner collects his own food and takes it direct to the table, but different in arrangement. Instead of the counter being behind the kitchen wall as in the case of hatch service, there are no hatches and the counter is brought into the dining-room and placed some three or four feet in front of the wall between kitchen and dining-room. The counter gives an opportunity for display of food and can greatly add to the attractiveness of the dining-room. By careful planning and division a wider range of foods can be served than is easy with the simple hatch service, though staffing becomes proportionately larger.

Divided Counter

Counter arrangement is subject to infinite variation in plan. A simple form is to devote separate sections of the counter to different types of dishes and to divide these sections by queue rails. The queue rails are usually some four to five feet apart and meet the front of the counter at right angles. Thus

several short queues are formed and the approach to the counter is similar to the usual arrangement for hatch service.

Service of Food

The food is in most cases prepared on the plates and the "plated up" meals stacked in hot cupboards beneath the counter in the same way as with the hatch service. Alternatively food may be kept hot in bain maries on the top of the heated sections of the counter and portioned and served as required. There is less danger of drying up under this arrangement and many diners prefer to see their food coming direct from these large containers. Some difficulty may be experienced with the great pressure of customers in dishing out quickly enough, and it is necessary to have meat carved, meat pies divided up, etc., beforehand. Measure implements for portioning and serving some of the food commodities help to speed up the service. Diagram of a proposed layout is given on page 57 (Appendix III.).

Full Cafeteria Service

The full cafeteria service usually confines the diner to a journey from one end of the counter to the other by means of a barrier rail running the whole length of the counter. It is expected that the diner will pick up a tray at commencement of the cafeteria journey and collect his or her complete meal, with the exception possibly of tea or coffee, for which a return journey or part journey must be made. This full cafeteria service was introduced from America and has not yet proved very popular in the heavier industries, especially in the north, though it is used most successfully in a large number of canteens in the light industries and is much used in stores' restaurants, etc. A disadvantage is that puddings and drinks get cold before they are wanted. The commodities available are displayed and arranged either in bain maries let into the top of the hot sections of the counter, or in display shelves, etc., mounted on the top of the cold sections. Space is allowed for piles of trays at commencement of the counter, and the diner, having passed through and collected his food, then picks up his cutlery at the exit end and pays for his meal finally at the far end of the counter.

Some workers object to collecting their food together on a tray in this way and prefer to take a simple plate of food direct to their table and to return for their sweet. On balance the modified cafeteria where the different sections of the counter are divided by short queue rails and trays are not used seems to meet the needs of the works canteen better than the full cafeteria. With this sectional system trays are appreciated by the workers for collecting several cups of tea or other drinks for a whole group at one table.

Enclosed Cafeteria

A variation of the full cafeteria has been successfully adopted in some cases, this being the enclosing of the cafeteria counter in a "servery." A screen or party wall is provided with a door at each end and this wall takes the place of the continuous barrier rail. The counter is positioned inside the long narrow room thus provided and at the rear of the room doors are provided through back wall into kitchen. The benefit of this particular arrangement is that, if the dining hall is to be used for dances and evening functions, the appearance of food and meals is removed since food preparing and serving equipment cannot be seen. This arrangement of counter service is sometimes referred to as an "Enclosed Cafeteria." A similar result may be secured by having roller shutters which come down over the whole length of the counter and thus seal the servery from the dining-room.

Whether service is by hatch or some open form of counter it is essential that sufficient space be allowed between the servery and the first row of tables in the dining-room so that diners are not involved in a continual crush and mêlée in getting their food and carrying it back to their tables. The different sections of the servery must be clearly marked to show what dishes are available at that section, together with the prices. One or more large menu boards should also be displayed in a prominent position so that diners can decide on their meal before approaching service counter. An indication of the numbers of staff needed for a counter service is given on page 37, and outlines of possible layout arrangements on page 58 (Appendix III.). Methods of payment for different types of service are described on page 34.

WAITRESS SERVICE

Waitress service is the exception in industrial canteens, since for quick service one waitress is required for every sixteen customers. It is the practice, however, to arrange this service for staff canteens where the diners often prefer to pay a little extra in order to have waitress service.

Condiments should be provided on the tables. Cutlery and glasses may be on the counter, on racks in the dining-room or laid on the tables, and care should be taken that drinking water is readily available either from a tap or fountain in the dining-room or in frequently refilled jugs on the tables. Tables should be frequently cleared of used crockery and wiped over.

Spread-over Lunch Hour

Where the lunch hour is spread over a period of $1\frac{1}{2}$ —2 or even $2\frac{1}{2}$ hours there may be two completely separate services, from 12—1 and 1—2, or employees may be released in relays, department by department, at intervals of 10, 15, 20 or 30 minutes. The choice between the single lunch hour and the spreadover may depend on production requirements, but from the point of view of the canteen arrangements depend on accommodation. If the dining-room space or the length of the service counter is limited a spreadover will help. Otherwise it is better avoided, as it throws extra strain on the kitchen staff, who have to prepare for successive shifts and serve at the same time in order to avoid keeping meals hot for too long a time. It may also cause complaints if certain items are off the menu for the last-comers of one shift and immediately on again for the first arrivals of the next. Further, when diners enter in relays at short intervals they have to hurry to vacate the tables, and this is particularly undesirable where no other recreation room is available.

FINANCE

The canteen is provided as an employee service and it is not regarded as a profit-making concern, but if prices are to be kept as low as possible, a rigid system of financial control must be operated and accounts presented regularly. This system must be devised to suit the individual needs of the canteen; it need not be elaborate but it should be capable of showing at any given moment the state of its finances. Before such a system can be devised, however, certain matters of policy must be decided by the firm:—

1. What, if any, proportion of the overheads are to be borne by the canteen?
2. Is the canteen to make any profit, and to what purpose is it to be put?
3. Who is to keep the accounts?

OVERHEADS

Canteen expenditure may be divided into three categories:—

1. Initial capital outlay.
2. Food costs.
3. Overheads and maintenance, including fuel and lighting, wages, cleaning, breakages and minor replacements, replacements of and additions to heavy equipment, insurance, rent, rates and taxes.

The initial capital outlay for the canteen and equipment is borne by the firm. Food costs should be covered by the takings, but the extent to which the works canteen bear their overheads varies considerably. It is possible for any well-administered canteen to be entirely self-supporting, or even to make a profit, provided the prices charged allow a sufficient margin over and above the bare food costs. The general aim of the works canteen, however, is the provision of good meals within the means of all employees, and, if it is not possible for the canteen to achieve this and to remain entirely self-supporting, the firm should be willing to make a contribution to the running expenses of the canteen. In this case it is usually found better for the firm to bear a predetermined portion of the overheads and to insist that the canteen shall be self-supporting in all other respects rather than to give a subsidy or to let the canteen bear all overheads and then make up its losses.

*Proportion
of Overheads
borne by
Firm*

The proportion of overheads to be borne by the firm will depend on the efficiency of administration, on the size of the canteen (since overheads do not rise in proportion to the numbers catered for, and the greater the number of persons using the canteen, the easier it is for it to pay its way), on the wages of the employees to whose means prices have to be adjusted. Existing practice varies from cases where prevailing wage-levels are low and the firm bears everything but the bare food costs, to others where the canteen pays all overheads and maintenance costs and even a small contribution to rates and taxes. The most general practice, however, is for the firm to relieve the canteen of all expenses connected with the premises and heavy equipment and of heating and lighting; wages and fuel costs are usually borne by the canteen, but the firm sometimes pays the whole or part of the salary of the manager or manageress.

Gross Profit

It is not possible to lay down any general figures applicable to all canteens as to what percentage of gross profit the takings must show in order that the canteen may cover any given proportion of overheads. Where the firm bears all premises costs, heating and lighting, and the canteen bears wages, salaries and insurance, fuel, crockery replacements, laundry, etc., however, the gross profit will need to be from 25 per cent. to 35 per cent. A considerable margin is allowed here for variation in the wages bill according to the type of service. The figures quoted in the examples below are taken from large canteens:—

1. Canteen with part waitress service, where firm bears all premises costs, heating, lighting:—

Wages, salaries and insurance	...	20%
Fuel		2½%
Crockery		1¼%
Linen		¼%
Repairs		½%
Printing and stationery		¼%
Laundry		¾%
Sundries		⅜%
Margin of net profit		⅜%
Total Gross Profit	...	<u>26¼%</u>

2. Canteen with counter service:—

Wages	...	...	...	...	23.0%
Fuel	...	...	...	...	1.8%
Repairs and replacements	...	...	...	...	2.7%
Sundries (cleaning, laundry, etc.)	...	...	...	...	5.5%
Depreciation	...	...	...	...	3.0%
					36%

COSTS AND PRICES

Estimating Costs

It is not possible to determine immediately exact costs for any canteen; this can only be done after a trial period during which the canteen supervisor has kept careful record of purchases and takings, incomings and issue of stock, and estimated for each meal not only the food costs but the fuel costs and the appropriate proportion of the wages bill. It is now immensely more difficult than before the war, owing to price charges. Further, in order to cut prices as finely as possible without incurring a loss, and to balance the more expensive dishes against those showing a profit, very detailed estimates and calculations are needed. Opinions vary as to just how detailed this costing should be, some holding that the exact cost of, and profit on, each item on the menu should be worked out and others that the labour entailed in doing this outweighs the advantage gained. It is not possible to enter here into methods of costing, but lists of books will be found in the appendix on page 55 which will help the canteen supervisor to work out his or her own method.

Prices

No general rules can be laid down as to prices to be charged, as these will have to depend partly on the factors already discussed: the proportion of total costs to be borne by the canteen and the prevailing wage-level in the firm, and partly on current changes in prices of foodstuffs. Before the war a full meal of meat and two vegetables, pudding and a drink could be got in most large canteens for 8d. to 11d., and some hot dish with bread (often with special prices for juveniles) for 3d. or 4d. Increases in prices have forced a number of canteens to raise their prices by ½d. or 1d. Special arrangements are sometimes made for juveniles to obtain free meals or to pay a small weekly charge to cover the main meal and refreshments in rest pauses. This ensures a certain regular number of customers and simplifies collection of payments, but losses may have to be made up on the prices charged to other canteen users.

PROFITS

No matter how closely costs are calculated, it is not possible—unless prices are to fluctuate undesirably—to cut prices so finely that no profit accrues. The question then arises as to what extent the canteen may make a profit and the purpose to which it should be applied. Obviously, if such profit is made there should be a reduction in prices. If it is only slight this may not be feasible and a balance may gradually accumulate. In some canteens this is allowed to mount up and then used for improvements in the canteen; in others special free meals, such as a Christmas dinner, are provided once or twice a year, or certain free meals may be given to individuals on the recommendations of the welfare supervisor or medical officer; in others again the profits may be handed over to the recreation club or benevolent fund.

RESPONSIBILITY FOR ACCOUNTS

Manager's

Responsibility

It is the practice in some firms for the canteen accounts to be kept in the general accounting department of the firm. Experienced canteen managers usually feel that this hampers them considerably in their work and prefer special accounts to be kept in the canteen, subject, of course, to frequent presentation of accounts to the management, auditing by firm's auditors and final incorporation in the firm's accounts. (If the canteen is run as a section of the recreation club, the accounts will, naturally, be incorporated in the club accounts.) Where the accounts are kept in the canteen the manager has all the information necessary to prepare frequent profit and loss accounts and determine exactly what margin he is making. He will have records of all purchases of food stuffs and other commodities and so know what cash is available to pay accounts and be able to take full advantage of cash discounts when buying. Where the accounts are not in his hands he may find himself lacking in vital information necessary for the efficient running of the canteen.

ACCOUNTS AND STOCK-KEEPING

Essentials in *Accounting*

No model system of keeping the canteen accounts can be laid down, but any satisfactory system should give rapid access to the following information:—

1. What is it costing to run the canteen?
2. What does each meal cost to produce?
3. What percentage must be added to the cost of each meal to (a) make the canteen self-supporting; (b) cover such overheads as the firm has decided it shall carry?
4. What stores have been bought, what has been used, and what stock is there in hand?
5. What cash has been taken and what check is there on the takings?

To provide this information records should be kept along the following lines:—

Stock

In the small canteen the supervisor will probably be responsible for stock, otherwise a special storekeeper should be appointed. Goods should be delivered direct to the store-rooms, where they should be checked against the delivery notes or invoices, which are then passed to the supervisor's office for checking against the orders. Weights and measures should be checked on delivery. (Perishable goods needed at once may be delivered to the kitchen and checked by the cook.) In the office a stock book should be kept (preferably not by the storekeeper), recording for each item:—

1. Opening stock.
2. Deliveries of stock, with prices.
3. Issues of stock.
4. Balance of stock.

At fairly frequent intervals this book should be checked with the stock. Goods should be issued only by the storekeeper against requisition forms authorised by the canteen supervisor. From the delivery notes and requisition forms the storekeeper can keep his own record of stock.

Weekly readings should also be made from the electricity and gas meters.

Subsidiary *Stocks*

If any stocks are kept in tea stations, satellite canteens or other subsidiary canteen stations, the individual in charge who is authorised to requisition stores from the canteen must also keep a record of stores delivered, cash takings and stock, which must be submitted regularly to the storekeeper or canteen supervisor.

*Purchases
Journal and
Ledger*

From the various invoices the record can be made of purchases. It will probably be found most convenient to have a purchases journal into which commodities, maintenance items, and other expenses are entered, grouped under convenient headings. A purchases ledger can then be kept showing the opening balances, monthly totals from the journal, cash discounts and returns.

*Cash and
Sales*

The cash system will depend on the form in which payment is made in the canteen. Where there are waitresses the totals on their bill-stubbs can be checked against the cashier's receipts. Where all customers have to pass the cash register each transaction is rung up on the cash register. Where the exact value tickets or tokens received are bought at the entrance to the canteen and handed immediately over the counter, they can be kept by the counter assistants and checked up at the end of the service against the sales of tickets or tokens. Where tickets are sold in quantities the exact record of tickets handed over the counter becomes most important, since it is the only means of checking daily sales, though the rolls of tickets or machines will give the takings over a period. Whatever the system the cash taken will be handed to one person, generally the manager, who will record it in the cash receipts book. Takings should be banked daily and all payments, except petty cash, made by cheque. A cash book should be kept showing the daily payments into the bank and cheques drawn giving details.

*Profit and
Loss Account*

If accounts are kept on these lines, the following information should be readily available, and it should be quite simple to draw up a profit and loss account:—

1. Purchase and expense accounts (from the totals of the Purchase Journal).
2. Sales (from the daily cash receipts).
3. Discounts, wages and other payments (from the cash book).
4. Stock value (from stock book).

A specimen Profit and Loss Account is given below:—

Monthly Trading and Profit and Loss Account, 31st March, 1939.

1939							
1st Mar.	Stock in hand	...	£300 0 0	31st Mar.	Sales	...	£800 0 0
31st "	Purchases	...	600 0 0	" "	Stock in hand	...	300 0 0
	Gross profit C/d	...	200 0 0				
			£1100 0 0				£1100 0 0
31st Mar.	Wages, salaries and insurance	...	160 0 0	31st Mar.	Gross profit C/d	...	200 0 0
	Gas	...	20 0 0		Discounts received	...	8 0 0
	Crockery	...	10 0 0		Sundry receipts	...	2 0 0
	Linen	...	2 0 0				
	Repairs	...	4 0 0				
	Printing and stationery	...	2 0 0				
	Laundry	...	6 0 0				
	Sundries exp.	...	3 0 0				
			207 0 0				
	Nett profit for month		3 0 0				
			£210 0 0				£210 0 0

Gross profit on sales 25%.

Overhead expenses 25.875% on sales.

PAYMENT AND ORDERING

Three main methods of payment may be adopted:—

1. Cash payment.
2. By tokens or tickets.
3. By deductions from wages.

Whichever method is chosen it is essential that there should be an absolute check on all money taken.

Payment in Cash

With waitress service cash payment is the rule. Money is paid to the waitress or, preferably, a bill may be given and payment made at a cash desk. An excellent method of checking takings has been devised by one luncheon club; the waitresses keep a note of the totals of all bills they issue and then make out a sheet which is checked with the takings in the till.

With counter service, where the customer is obliged to pass the full length of the counter behind the queue rail, payment is made to a cashier at the end of the rail. If large numbers are passing out quickly it is usually found better to have two cashiers, one adding up the amount due and issuing a check for it, the other taking the money. It is undesirable for cash payments to be made over the counter.

Tickets and Tokens

Where customers collect their food from a hatch or may leave the counter at any point, some form of payment must be made on the spot and for this tickets or tokens are used. These are kept and afterwards checked with the money taken and the food sold. Tickets are more generally used than tokens, as they can be issued from machines and can be spiked or otherwise defaced on surrender. Tokens may be reissued and are convenient to handle, but are also easily counterfeited. Tickets may be issued by a cashier or by automatic ticket machines. For the small canteen it will probably be found best to have a desk at some convenient spot in the main entrance corridor or at the entrance to the canteen. The cashier may be supplied with rolls from which she tears off tickets or she may have a ticket-issuing machine which records automatically the sales value of each ticket. Small portable machines are available. An automatic coin-operated ticket machine is sometimes used, but there is the difficulty of change and a change-giving machine is an expensive piece of equipment. In the large canteen a cashier and cash desk at the main canteen entrance, supplemented by coin-operated automatic machines at other entrances, in the departments or in convenient corridors, will be necessary. For these cash desks there are electrically-operated ticket-issuing and recording machines.

Tickets are usually issued in about five values from 1d. upwards (with different colours for different values) and they can be so printed that they can be torn across for half values. In some canteens books of tickets are sold at the beginning of the week, unused tickets being taken back at the end and credits issued towards the next week's book.

Accounts and Deductions

Where meals are ordered in advance accounts may be kept for the week and settled on pay-day. In staff canteens accounts are sometimes settled monthly. Where a fixed sum per week is charged—a method often employed where only a set meal of meat or fish, vegetables, sweet and tea or coffee is provided—payment may be made by deduction from wages, but the written consent of the employee to this arrangement must be obtained.

Ordering in Advance

The question of whether meals should be ordered in advance is one on which there is considerable divergence of opinion. In the small canteen, if much choice is offered or the numbers using the canteen fluctuate appreciably, it may help the manager to make a more accurate estimate of what is needed. He can eliminate waste and complaints that certain dishes are quickly off the menu.

In the larger canteens, however, variation in taste and fluctuation in demand more or less cancel each other out and the difficulties of operating a system of ordering are often found to outweigh its advantages.

Ordering may be done in various ways. In some canteens the menu is made out for a whole week in advance, circulated and returned by the end of the week with orders for the following week. Where there are waitresses, a menu for the following day may be placed on the tables with the current one and orders taken by the waitresses. A combined system for ordering and paying may also be operated; in some firms tickets, numbered and lettered or coloured to show the dish desired and the price, are sold either in the morning or on the previous day, and the demand is estimated from the numbers sold. In others tokens are sold denoting full lunches or individual items. Sometimes employees are encouraged to order in advance by the allowance of a small reduction on ordered meals or by placing the food ready on the tables for those who have ordered, while others have to queue up at the hatch or counter.

BUYING

It is not necessary to stress the importance of good buying. The range of meals available in an industrial canteen should cover the needs of the lowest-paid worker, and, at the other end of the scale, may cater for the directorate and management, staff and sometimes visitors. A real knowledge of the variation in supply of all food commodities and seasonal prices is, therefore, a very great asset to the canteen manager. It is important that a reliable source of supply should be established and current market prices of commodities compared frequently with those of the firm's suppliers.

Sources of Supply

It is impossible to lay down any rigid rule for buying. The best method can only be established after the examination of all possible sources of supply. Although in the larger canteens it is a common practice to buy in the central markets, there are still those managers who maintain that local suppliers can compete with these markets in the matter of prices and who will guarantee a standard of quality upon which they can rely. Tenders should be invited from local tradesmen as well as the larger purveyors and contracts should be for a short period only. Speculative buying of goods that appear cheap may in fact prove a source of waste.

Non-perish- able Goods

Non-perishable goods are, of course, cheaper bought in bulk, and it is possible where storage is limited to arrange for week-to-week deliveries by the wholesale suppliers. Seasonal contracts for forward delivery must be placed for estimated requirements. Perishable goods may be ordered from day to day. Arrangements can be made with the manufacturers for the supply, at wholesale prices, of popular brands of chocolates and cigarettes, though the former are only obtainable in limited quantities at present.

Stocks

Apart from the normal running stocks of non-perishable goods which are bought in bulk, most canteens accumulated before the war certain stocks against

emergency breakdown of supplies. Too often these are put away separate from ordinary stocks. They should be readily available and should be regularly turned over and replaced by new purchases, as even tinned goods do not keep indefinitely. Fruits and sweetened milk should not be stored for more than 9-12 months and vegetables and unsweetened milk for more than 2-3 years. In addition, every canteen should have on hand at least one day's food, including perishable goods, to tide over any possible local shortage or dislocation of deliveries.

STAFF

Engagement

On the ability of the staff and their desire to please depends much of the success of the canteen. It is essential, therefore, that the selection of the manager or manageress, status, pay, and working conditions of all members of the staff should be good. Considerable thought on the part of those responsible for planning the canteen services will be necessary and a willingness to make adjustments where the initial arrangements do not prove satisfactory. It is usual for the manager or manageress of the canteen to engage the necessary staff, cooks, kitchen hands, waitresses, etc. Not only must the canteen manager have a sound working knowledge of all aspects of canteen administration, but he must possess qualities of personality which will ensure ready co-operation on the part of all those working in the canteen, and not less important, he should recognise always that the canteen is a service instituted by the firm for the benefit of its employees. The continued popularity of the canteen will, therefore, depend in a large measure on the atmosphere established by the staff, and good relationship can be fostered or hindered by the qualities of leadership shown by a canteen manager.

Status and Salaries

The status of the canteen manager and his staff are dealt with on page 23 and the legal points affecting their position on page 49ff. They should be made to feel that they are performing an important part in contributing to the well-being of employees. Their own welfare is as important as that of any other section of the staff, and the lighting and ventilation, etc., of the working premises should be efficiently planned. Suitable protective clothing should be provided for those on scullery work or preparation of vegetables, and overalls and caps for others in the kitchen and serveries. Cloak-rooms and lavatory facilities must be provided for the canteen staff, and it is most desirable that a room be set aside where they can have their own meals in comfort.

Manager

It is difficult to lay down any fixed salary limits, since the qualifications and responsibilities of those in charge of canteens vary so widely. The following figures are based on existing practices:—

1. Canteen catering for 100-250 persons with limited services—£225-£250 per annum.
2. 400-1,000 persons—£250-£350 per annum.

In a large canteen with multiple services the salary may range between £500 and £750 per annum.

Wages

The average wage for cooks is £2 to £2 10s. per week, and for those with specialised knowledge a wage up to £4 per week may be paid. Assistant cooks receive £1 15s. to £2 10s. per week; kitchen assistants, washers-up, cleaners, vegetable hands 25s. to 30s., and waitresses from 20s. to 30s., all these rates including meals when on duty.

Numbers of Staff

Information differs widely on the number of staff needed to operate a canteen, and this is bound to be so in view of the varied demands made upon canteens in different firms, the range of services available, the planning of the

canteen, and the type of equipment installed. The competent manager, however, will solve this problem by experience, and since many of the canteen staff are unskilled girls, adjustments can easily be made. The following figures give a lead to those with no previous experience of canteen staffing:—

Small Canteen

Example A. 200 persons, mid-day meal, limited menu.

45 staff and directors.

Teas and incidental food.

Total Staff 11: Manageress,

1 Cook.

1 Assistant cook.

1 Scullery woman.

2 Kitchen hands.

2 Counter hands.

3 Waitresses.

Kitchen Staff

Example B. Minimum number of *kitchen* staff for the numbers quoted. Figures supplied by a canteen manager.

Catering for:—

100: 1 Cook supervisor.

1 Assistant who would act as
vegetable cook.

2 General hands.

4

300: 1 Cook responsible for entrees and fish.

1 Cook responsible for joints, grills and pastry.

1 Vegetable cook.

3 General hands.

6

500: 1 Cook for entrees and fish.

1 Cook for joints, grills and pastry.

1 Assistant cook.

1 Vegetable cook.

1 Assistant to vegetable cook and
general hand.

3 Scullery hands.

1 Boy.

9

1,000: 1 Chef for general supervision.

1 Cook for entrees.

1 Cook for roasts and carving.

1 Assistant cook helping the above cooks.

1 Pastry cook.

1 Fish and grill cook.

1 Vegetable cook.

1 Assistant to vegetable cook.

6 Scullery and general hands.

1 Porter.

2 Boys.

17

Example C. Total canteen staff quoted as:

5 for 100 persons; 9 for 200 persons; 12 for 300 persons.

Counter Hands

Example D. *Counter hands* for numbers quoted. It should be noted that when not serving these members of the staff can carry out other duties. Figures supplied by catering equipment firm.

3 or 4 for 100 persons. 4 or 5 for 150 persons. 5 or 6 for 250 persons. 8 or 9 for 400 persons.

10 to 12 for 700-800 persons. 14 to 16 for 900-1,000 persons.

Large Cafeteria

Example E. 3,500 mid-day cafeteria meals

600 staff lunches

24-hour, seven-day week service

Total staff 90, including supervisors, cashiers, waitresses and 30 counter hands, 9 of whom and 1 supervisor are on night duty.

*Twenty-four
Hour Service* If a twenty-four-hour service is contemplated, on seven days a week, the following points about staff should be noted:—It is desirable to change the canteen shifts, say, two hours before the change of factory shift. An overlap of 15-20 minutes should be allowed between the shifts in the canteen. Cleaning is best done by a special helper, since the ordinary workers will not have time to do this and cleaning can become a serious source of friction between the different shifts. Extra staff will be needed to allow for a weekly day's rest for individual members, to be taken in relays. A twelve-hour night shift is practicable if two hours' rest is given, with facilities to lie down in quiet on proper bunks. The day shifts may be planned to have a double shift working together over the peak demand period at lunch time. Proper times for meals for the canteen staff must be allocated and opportunity given for them to take those meals undisturbed. Because of the extra number of staff needed to maintain a twenty-four-hour service, and the fact that sales at night will not rise in proportion to wages and other costs, the firm must be ready to face a heavier overhead cost than where only a single shift is worked.

Refreshments If lunches, snacks or teas are taken round the works on trolleys, or are supplied from tea or canteen stations in different parts of the works, these services should if possible be staffed by members of the canteen staff rather than by operatives from the departments. This ensures better control of organisation, takings and service and minimises dislocation of production. These duties can to a considerable extent even in smaller canteens be made to fit in with duties in the main canteen, especially if the rest breaks can be staggered through the works.

*Duties of
Staff* Duties are rarely rigidly fixed except for the storekeeper, clerical assistants and cooks. Waitresses may be required to help in the washing-up in the kitchen and in cleaning the canteen. Similarly, kitchen hands usually help in the service during the peak period. It is important, however, that staff should be informed of what is expected of them on engagement so that misunderstandings do not arise, and it should be emphasised that a certain amount of flexibility is necessary to ensure the smooth running of the canteen service, which is easily disturbed by absence or incapacity of a member of the staff.

CHAPTER V

FOOD AND DIET

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EVERY canteen supervisor requires a working knowledge of nutrition, that is, a practical knowledge of food and its effect on the human body. This is even more important in wartime than in peace time as working hours are longer, work more intensified and the general atmosphere more tense. The food must not only be the best possible the canteen supervisor can obtain, but must contain an ample proportion of the protective foods, in order to combat fatigue and prevent overstrain. Scientific and precise calculations are not necessary, and for this reason no figures of calorie or other values will be given here, as few canteen supervisors have time or use for such figures. A list of books is given where such information can be obtained in Appendix I, page 55.

In order to plan meals to the best advantage the fundamental points of good nutrition should be fully understood and appreciated. Food has three primary uses:—

1. To build and repair the body.
2. To provide warmth and energy.
3. To protect the body against disease.

Body- building Foods

Body-building foods are essential for all, as they contain the necessary elements the body requires to manufacture new body tissue. Junior staff require a larger proportion of these foods than energy givers, as they have to increase as well as repair the body tissue.

The foods which build the body are those which contain protein. Protein is obtained from both animal and vegetable sources. The foods from the animal kingdom contain protein that in itself is capable of making body tissue and for this reason is called first class or good protein. Vegetable protein cannot build body tissue if eaten alone, but used in conjunction with an animal food (e.g., haricot beans and cheese), forms a cheap and effective way of providing good protein.

Body-building material cannot be stored in the body, so must be provided daily and if possible some food to build the body should be provided at each meal. The body-building foods are milk, meat, fish, eggs, cheese, pulses and cereals, in conjunction with milk and cheese, and nuts.

The provision of these body-building foods may be inadequate in home diets and for this reason should be, if possible, amply supplied in canteen meals.

Energy- giving Foods

The foods which provide energy are starchy foods, bread, cereals, etc., sugars, and fats. These foods are necessary for all, a larger proportion being required where manual work has to be done.

Fats

Fats give energy, and by reason of their chemical make-up, weight for weight give more than twice as much energy as the carbohydrate foods. The higher cost of fats is thus partly offset by higher food value, not only as energy givers but also as protectors.

Fat foods are more slowly digested than starchy foods, and a meal containing a fair proportion will therefore sustain over a longer time than a meal that is largely carbohydrate.

Starchy Foods and Sugars

Starchy foods and sugars predominate in many diets. This is due to their ability to satisfy and to their cheapness. This predominance may be the cause of malnutrition, as excess of starchy foods will lead to lack of body-building and protective foods. To overcome this lack of balance care should be taken to provide body-building and protective foods rather than carbohydrates in canteen meals.

Protective Foods

Protective foods are those which contain mineral salts and vitamins, which fortify and safeguard the body from disease and infection. Considerable attention should be given to these foods in order to ensure an adequate supply. An increased consumption would undoubtedly lead to a general increase in vitality and a decrease in minor and major ills.

The protective foods may be divided into the following large groups:—

Dairy Produce.

Fruit and Vegetables.

Fish.

Liver and other Glandular Organs.

Dairy Produce— Milk

Milk is almost a perfect food. Its use should be vigorously encouraged and extended. Ideally, mid-morning milk should be obtainable in every works, and a high proportion of milk should be included in puddings, soups and sauces. Dried or canned milk may be used to advantage for puddings, etc., when fresh milk is too costly. If skim milk is obtainable it can be used in the same way, but requires the addition of a little suet or margarine to make good the fat that has been skimmed off.

Milk is important because it contains the “sunshine” vitamins, which protect against all diseases of the respiratory tract. It is therefore obviously of even greater importance during the winter months. It also contains calcium, which is essential throughout life to keep the teeth in good order, to prevent such disabilities as chilblains, and to maintain the various body processes in smooth working order. Milk has also the unique quality of helping the body to make better use of the other foods that are eaten.

Cheese

Cheese is concentrated milk and contains all its valuable qualities.

Cream, Butter and Margarine

Cream and butter contain the fat of the milk and thus the fat soluble vitamins. Vitaminised margarine is equivalent in value to butter and can therefore always be used as a substitute.

Fruit and Vegetables

Fruits, particularly summer fruits and the citrus varieties, are important, as they contain Vitamin C, an essential for good health, since it keeps the teeth, gums and skin in good condition and makes for positive health.

Vegetables, unfortunately, lose much of this vitamin in cooking, but also contain the sunshine Vitamin A and such mineral salts as calcium, iron, and

iodine, in varying degrees. More should be eaten raw. Vegetables are also necessary because of their bulk.

Fish The provision of fish is often sadly neglected, but as it is the principal source of iodine it should find an important position in the menu. Iodine is required for the proper functioning of the thyroid gland and is essential for health. The fat fish (herring, mackerel, sardines, salmon—fresh, chilled, or tinned) besides containing iodine, contain a very good proportion of Vitamins A and D, and for this reason should be used extensively.

The Glandular Organs These are liver, kidney, heart. These owe their importance to their content of Vitamin B₁ (which is needed for the nervous system) and because they are the richest source of iron necessary to prevent anaemia.

WARTIME RESTRICTIONS

Food rationing and restrictions make catering extremely difficult but interesting. The sugar and the meat restrictions will cause most worry.

Sugar Curtailment of the sugar supply will have no detrimental effect on health as sugar is merely an energy giver and has no protective powers. Bread, potatoes and cereals are good substitutes from the dietetic point of view. Nevertheless, insufficiently sweetened puddings will be unpopular and will have a bad psychological effect. The supervisor must, therefore, use all her knowledge to produce sugarless sweets that taste palatable.

Sweetening Methods There are many manufactured products that contain sugar, and these should be used to sweeten other products and not just as extras.

EXAMPLES

1. Jam and marmalade mixed in with a steamed or baked pudding will sweeten sufficiently.
2. Jelly cubes or crystals can be used as a syrup for stewed fruit or to make milk jellies and blancmanges.
3. Some of the syrup from canned fruit can be used to sweeten other fruits or to mix cakes and puddings.
4. Sweetened condensed milk can be used to sweeten milk puddings, used in the proportion of 1 tin of condensed milk to 5 pints of fresh milk. Condensed milk is also excellent for sweetening steamed puddings.

Glucose and syrup are the most used sugar substitutes, but the supply of these is limited. They are not as sweet as sugar; 1¾lbs. of syrup or glucose is equivalent in sweetening power to 1lb. of sugar.

More extensive use should be made of dried fruits as these supply vitamins B and some mineral elements as well as sweetening power.

Saccharine Saccharine is a sweetening agent that has no food value and is harmless. It is 550 times as sweet as sugar and so must be used in very small quantities. It can be obtained in tablet form (40 tablets equal 1lb. sugar), or in a soluble powder that is made into a solution. 1oz. dissolved in 8ozs. of water makes a solution equivalent to 32lbs. of sugar; 1 teaspoonful will be equivalent to ½lb. sugar. The best results are obtained from saccharine when half the sugar in a dish is replaced by saccharine. If saccharine only is used a bitter flavour is obtained.

Meat The curtailment of the meat supply and the lack of beef call on the Supervisor to use all her ingenuity to prevent monotony. In certain cases it would be wise to explain supply difficulties to the customers, as many are apt to think, because they can buy a small joint of beef in the local shop, the canteen should

be able to obtain similar goods. It is extremely important to see that all get a fair share of rationed meat.

Additions to Meat

The meat available can be made to go round by stuffing it, by serving savoury pudding, dumplings, or an additional vegetable with it. The pulses, peas, beans and lentils have doubled or trebled in price and are now difficult to obtain, so it is not practical to suggest that these should be used. Oatmeal is excellent for eking out the meat supply, cooked along with fresh mince in the proportion of 4ozs. oatmeal to 1 lb. mince; it will make 1lb. meat do the work of 1½lbs. and is not distinguishable. Numerous savoury dishes after the style of the Scottish White Puddings can be made with oatmeal.

It is impossible to lay down definite rules about the division of the meat supply, but it is a good plan to have one or two days per week, when no rationed meat is served. Fish might be served on these days. An excellent way to popularise the herring is to remove the backbone and fry the herring in batter. Soused herring with salad should be a popular summer dish.

MENU PLANNING

General Points

Some customers complain that canteen meals lack variety. This is often accounted for by their own conservative tastes. Menus should not be the same every week and the same dish should not invariably turn up every Wednesday. New dishes should be frequently introduced and substituted for previous ones and in that way they will not be eyed with suspicion. When a new dish has been introduced, keep an eye on the plates to see if it is approved. It must be recognised, however, that the dishes served are limited by the choice of suitably-priced ingredients.

Seasonable Food

Food in season should be used as much as possible. This will provide variety, nourishment and an occasional feeling of extravagance. Such things as fresh peas, beans and summer fruits may be a little expensive but a canteen supervisor should include them in the menus and economise on something else.

Stocks of tinned food should be purchased when these can be obtained at an advantageous price and kept in a cool, dry store until required. A good stock of canned foods for emergencies, such as a breakdown of delivery services or an extra rush in the canteen, should be maintained.

Left Overs

Made-up dishes such as croquettes, shepherd's pie, etc., are often very popular in the canteen. Occasionally these dishes will have to be made, but it is a pity to over-encourage their use. They can better be made from fresh meat, as meat left over has lost much of its food value and is less digestible.

THE MENU

Each dish in a menu has its purpose to fill, and the supervisor should know by its ingredients that it is capable of fulfilling it.

Soup

When soup is ordered it is often as an economical substitute for a more substantial dish. When this is so, special attention must be paid to the soup to ensure that it has nourishing qualities.

Soup has always to be sold at a low cost, so it is difficult to use fresh meat for soup making. Make full use of the pulse vegetables, bones and stock, and when possible add milk to the soup in order to provide first-class protein. Baked or fried bread (particularly wholemeal) are valuable additions to the

bowl of soup. Lentil, pea or tomato soup and Scotch broth are examples of soups with good food value.

Fish

In some canteens fish is only served once a week. This may be all that is possible and economic in certain circumstances, but an effort should be made to include fish in the menu twice a week at least. Fried fish is a universal favourite, but other attractive ways of cooking fish might be adopted which would provide a cheaper fish dish and one which would require less preparation, e.g., fish au gratin, stuffed baked fish, or fish pie.

The oily fish, herring and mackerel, are unbeatable for food value, and, being inexpensive, could be served at very reasonable prices, and efforts should be made to popularise them.

Meat

Entrées cost less than joints and are easier to serve, and although less popular than roast meat, are preferred to stews. The extent to which they can be included in the canteen menu will depend on the staff and kitchen equipment, but an effort should be made to include entrées such as haricot mutton, stuffed hearts, rabbit with pork and beans, liver and bacon, hot pot, which are really nourishing and economical.

Potatoes

When potatoes are boiled or steamed they should be cooked in relays, as they deteriorate in flavour, appearance and food value if kept hot for long.

Baked potatoes in their jackets are excellent for food value and might appear on the menu more frequently. Chipped potatoes are universal favourites, and it is perhaps a counsel of perfection to suggest that they should not appear on the menu more than twice a week. The proportion of fried food of any sort should be restricted, as it is more difficult to digest.

Vegetables

Great efforts should be made to popularise vegetables, especially some of the lesser known varieties which can be produced locally, such as chicory, sea-kale, endive, etc. And whenever possible there should be a choice, as people have strong likes and dislikes.

It is very important to see that vegetables are in good condition, as they rapidly deteriorate in food value on keeping. To maintain the maximum food value, keep them in cold storage.

Vegetables should be prepared immediately before use, as long soaking has a detrimental effect on their flavour and food value.

When cooking vegetables aim at preserving their flavour, colour, form, and maximum food value. Over-cooking of vegetables is a common fault in all large-scale cooking. To remedy this it is worth while giving careful attention to arranging staff duties, so that vegetables can be cooked and served immediately.

Methods of Cooking

1. Boil green vegetables in salted water without soda.
2. Steam all root vegetables (do not pack tightly or in thick layers in the steamer, as this hinders cooking).
3. Braise onions, celery, etc.

Canned Vegetables

The food value of canned vegetables is comparable with the fresh article, the waste is negligible, and they are a great aid in introducing colour, flavour and variety. The liquid in which they have been canned is useful for soup, as this has flavour and nutriment.

Canned vegetables are ready cooked, so should only be reheated, not recooked, as this is detrimental to appearance and food value. Heat them in the liquid in which they have been canned or in the steamer.

Salads

Green salads can be available in the canteen for the greater part of the year and their use should be encouraged, as fresh green stuff is a good source of the mineral salts and vitamins which are often lost in cooking vegetables. Careful supervision will be necessary in the preparation of salad vegetables. After washing, green salad vegetables are best dried and then placed in covered containers in a refrigerator till required. This crisps and improves lettuce very much and is an economy, as a larger proportion of the outer leaves, which contain more "sunshine" vitamins than the heart, can be served.

Variety should be introduced into salads, and it is more economical to keep to about three different salad vegetables daily, e.g., lettuce, tomatoes, watercress (which contains iron and iodine). Lettuce, grated carrot and cucumber; lettuce, peas or beans, and spring onions; lettuce, beetroot, and radishes; and a variety of other combinations could be introduced, taking full advantage of such vegetables as celery and chicory when in season.

In summer time a salad may be popular as a main dish, in which case the dish should be balanced by the introduction of body-building material such as hard-boiled eggs, grated or cream cheese and nuts, cold meat, prawns, sardines, salmon, etc. Potatoes, sweet corn, or baked beans will make the salad more substantial.

Ices

Ices form an excellent substitute for a sweet in summer time. All ice-cream has milk as its primary ingredient, and for this reason it has definite nourishing qualities. Ices are simple to serve, as many firms supply individual portions in suitable containers which keep them in good condition.

Ices can be used as a foundation for a variety of sweets. Their use will prove a great help in summer time, when there is more demand for cold sweets. To give additional nourishment and flavour to ices, add fresh fruit in season, sliced bananas or canned fruit, chocolate or jam sauce or fruit syrup, and nuts.

Sweets

The sweet course, although not the most important part of the meal, is important for supplying dairy produce (Vitamins A and D) and for supplementing the minerals and vitamins supplied by the previous course. For example, raisins, prunes, and treacle will supply iron, milk calcium, bananas Vitamin B, fresh fruit Vitamin C, and so on.

Plain rice or tapioca pudding is often a daily item on the menu, but there will always be a great number of people who will not eat it who might try a variation such as French rice pudding, caramel rice, which might supplement the plain pudding more frequently. Other simple sweets which should be prepared with a large proportion of milk are chocolate moulds, queen's pudding, coconut pudding, as well as junkets and custards.

Pastry is another favourite which should not appear too regularly on the menu, as it entirely lacks protective qualities and is only useful as a heat and energy giver, unless combined with a liberal portion of fruit or milky custard.

To encourage the consumption of nourishing sweets, make them attractive, serve individual portions, and see that cold sweets are served from a refrigerator whenever possible.

Fruit

Fresh fruit is a very important protective food and ought to have a prominent place in every menu. Unfortunately it is comparatively expensive and it is often considered as an extra rather than as part of a meal, and is therefore neglected. It is a good plan in a canteen to make a speciality of some fresh seasonable fruit daily, e.g., tangerines, nuts, gooseberries, and cherries, etc., in season.

Fresh fruit can be incorporated in sweets in a variety of ways, e.g., in flans, with ices, blancmanges, as fresh fruit salad, summer pudding, and in jelly.

Cheese

Cheese is an extremely valuable food, as it contains building, protective and energy-giving material. It is one of the cheapest and best forms of good protein, and is therefore a first-class substitute for meat. It will appear daily on the menu, served with bread or biscuits, and should also be used frequently in the preparation of savoury dishes (such as cheese potatoes, vegetable au gratin, or cheese pudding), as it is an excellent flavouring agent. Grated cheese served with a salad or soup provides the good protein the dish otherwise lacks.

Many people avoid cheese dishes, as they consider them indigestible, but as long as the cheese is not overcooked it should not be difficult to digest, especially when grated.

Bread

Both white and brown bread should be available. Wholemeal is the cheapest and most nourishing of the brown breads. As it becomes stale more quickly than white bread, it should be cut in small amounts. Where possible, rolls, brown and white, should be provided, as they check the tendency to excessive consumption of bread at the expense of more important food. Stale bread may be used up as crumbs in steamed puddings and charlottes, or rusks to serve with soup, as well as raspings.

Beverages

Tea and coffee are always in demand and are often taken as a habit. As the tannin in tea and in coffee have the effect of hardening protein and making it difficult to digest, the consumption of tea or coffee with a meal should not be encouraged. Drinking water should be readily available, and if it can be iced it is more palatable. Minerals, home-made lemonade and other soft drinks will be popular.

CHOICE OF MEALS

A la Carte Dishes

Table d'hôte meals have many advantages, one of the most important being that they are the simplest means of providing well-balanced meals. If the choice of food is left entirely to the workers the menus chosen are apt to err on the starchy side. Where à la carte dishes are served, suggestions should be made of suitable combinations of food, thereby tactfully guiding the choice of food that will nourish the whole body and keep it fit.

FOOD ALLOWANCES

Those who wish to calculate the calorific value of a diet can do so by referring to any recognised text-book such as "Food Tables" by V. H. Mottram and Ellen M. Radloff. In special cases it may be necessary for a canteen supervisor to make these calculations. Much exacting work is involved, however, and the value of the results is doubtful unless it is certain that accurate allowances are made for waste, not only in preparation, but also in cooking and serving. Calculations based on observation of the appetites of the diners will probably be the best pointer to follow.

The type of work done (i.e., energy expended) governs the amount of food required. Thus a man doing heavy manual work may require 25 per cent. more food than a man doing light work. The bulk of this extra food should be energy-giving, but a small increase in body-building food is also recommended.

Proteins

A check on the proportion of protein in the meal is far more useful than calculating calorie values, as a deficiency of body-building and protective food-stuffs will probably not be noticed by the diner whose hunger is satisfied.

Basing requirements on the recommendations of the Mixed Committee of the League of Nations (i.e., 1 gram of protein per kilo of body weight), the figure of 70 grams of protein per head per day can be taken as an average. Of this fifty per cent. should be first-class protein.

THE MID-DAY MEAL

Dinner taken in the canteen is usually the principal meal of the day and should provide from one-third to one-half of the total food for the day, and include half the total protein.

Requirements of Light and Heavy Workers

Where light, moderate, and heavy workers dine together the quantities for moderate workers can form the basic menu, and provision be made for an alternative sweet for the light worker, e.g., stewed fruit instead of a suet pudding. Cheap provision of bread and cheese as an extra satisfies the needs of the heavy worker.

Quantities of raw materials required to supply adequate portions are given in Appendix V., page 62, as a guide, and if calculated on these lines, the other menus given on page 64ff., will be found both appetising and nourishing.

NIGHT AND SHIFT MEALS

If workers take their main meal in the middle of the night, it should be similar to the mid-day dinner and contain similar quantities of body-building, protective and energy-giving foods, and a fair proportion of rationed foodstuffs. Some light and nourishing dishes, such as milk soups, bread and milk, porridge, egg dishes if available, fish, etc., should, however, also be available for those who prefer to take their main meal at home or cannot digest a heavy meal at night. Eight-hour day shift workers rarely take their main meal in the canteen, but need cheap nourishing refreshments similar to those suggested below for juveniles, or breakfast dishes.

MEALS FOR JUVENILE WORKERS

It is obvious that growing boys and girls need food for building up new body tissue as well as repairing waste.

It is often said that a boy of 14 eats as much as his father, but he may in fact eat, and need, considerably more. Lack of essential foodstuffs during this important period of growth of girls as well as boys, will have a lasting effect on the general health and physique of the adult.

Cheap Dinners

The problem, therefore, of the largest appetite and the slenderest purse is an important one and deserves careful consideration. The provision of an adequate dinner at a price the young worker can afford is likely to mean that only the bare cost of the food is recovered.

The provision of such a meal is strongly recommended and should receive the first consideration when staff meals are provided.

Provision of Snacks

The provision of snacks for adolescent workers should not be considered a satisfactory alternative to an adequate dinner, but as a first step towards providing a full meal, and as an economical means of supplementing what is brought from home. When there is a canteen already functioning nourishing snacks can be made and sold at economical prices. If these snacks are to be of real value they should provide body-building and protective material — essential foodstuffs if the adolescent is to mature satisfactorily.

The following suggestions for snacks (where cold ones only can be provided) will be a guide to choosing wisely when low cost and high food value are required:—

SANDWICHES OR ROLLS.

Cheese and Tomato.
Galantine and Watercress.
Minced Meat and Lettuce.
Ham or other meat.
Sardine or Salmon.

PASTRY AND OTHER DISHES.

Cornish Pasties.
Mutton Pies.
Scotch Eggs.
Scotch Tomatoes.
Cheese, Egg, and Tomato Pasties.
Star Gazing Pastie (Herring).
Salmon Pastry Sandwich, etc.

To encourage a balanced meal an inclusive price might be made for one of these snacks, plus an orange or apple or other fruit. Bread, preferably brown, butter, and cheese, should be available unless it is the common practice to bring these in packet lunches.

Hot Dishes

Where the provision of a hot dish can be arranged, the following, which are cheap and nourishing, might be tried:—

Macaroni and Cheese.
Pease Pudding and Pickled Pork.
Herring, Tomato, and Potato Pie.
Lentil or Pea or Vegetable Soup.
Cheese and Potatoes.
Stoved Potatoes (Economical Irish Stew).
Stuffed Potatoes or other Vegetables.

Milk at the Mid-morning Break

To ensure an adequate supply of body-building material, juveniles should be encouraged to take milk at the mid-morning break and at tea-time. The importance of this cannot be overstressed. A cheese sandwich at tea-time instead of the usual biscuits is another easy and appetising way of adding vital food value.

PORTIONS

Portions must be uniform in size—

1. To prevent argument amongst the diners.
2. To facilitate correct costing.
3. For proper calculation of quantity of food required.

Measuring portions

To ensure uniformity of portions, measures should be used and definite orders given as to the number of portions to be obtained from each dish.

To apportion soup is a very simple matter; use one-third pint ladles for moderate workers, and half-pint ladles for manual workers.

An excellent way to portion out green vegetables is by pressing in between two dinner plates and then dividing each plateful into six to eight portions. This also ensures that the greens are hot and well drained.

Puddings and pies should, whenever possible, be cooked in individual portions, but this may not always be practicable if kitchen staff is limited.

The alternative is to cook pies and made-up dishes such as shepherds' pie in rectangular straight-sided dishes (these also economise oven space). A tin 10in. by 14in. by 2½in. makes twelve moderate-sized portions of pie, baked sponge pudding, or shepherds' pie.

An 8in. pudding basin will serve eight moderate portions of steamed pudding or meat pudding.

For stews, meat can be cut into approximately ½in. cubes weighing about ½ oz. About 10 pieces of meat should be served for each moderate-sized portion.

The cooks should co-operate with the service hands when a new dish is served by explaining how the dish should be portioned out.

A table on page 62 gives the quantity of food required per portion for different grades of workers.

FOOD RATIONING

The procedure for a works or staff canteen to obtain rationed food is the same as that of other catering establishments. The manager of each canteen must make application for registration with the Food Control Committee in the locality. A leaflet for the Guidance of Catering Establishments is published by the Ministry of Food and gives full details of the steps necessary to secure initial registration and subsequently supplies of rationed foods. All detailed information about rationing may be obtained from the local Food Control Committees, and to them should be addressed any complaints. The Ministry of Food is beginning to publish informative literature about the use of food in war-time, and this may be obtained on application to the Ministry of Food, Horseferry Road, S.W.1.

CHAPTER VI

WORKS CANTEENS AND THE LAW

To what Acts of Parliament or other sets of legal rules must a Works or Staff Canteen conform? In the first place we have to consider whether the canteen is a "shop" so as to come within the scope of the Shops Acts, since the law not only limits the hours of shop workers but also contains regulations as to ventilation and sanitation in shops and comfort of shop workers.

IS A WORKS CANTEEN A "SHOP"?

"Whether a canteen attached to a factory or works or other industrial or commercial concern for the use of the employees is a 'shop' is a question of fact and must depend on the circumstances of the case. It is clear that the Shops (Hours of Closing) Act, 1928, contemplates that such canteens may be 'shops.' A factory canteen serving the manual or factory workers is part of the factory, but that fact alone would not prevent the canteen from being also a shop within the meaning of the Shops Acts and the canteen assistants 'shop assistants.' Assistants in a factory canteen are not 'employed' within the meaning of the Factories and Workshops Act, 1901, since they are not employed in any work 'incidental to or connected with the manufacturing process or handicraft or connected with the article made or otherwise the subject of the manufacturing process or handicraft.' Consequently the rules as to hours of young persons and women laid down in that Act do not apply to persons employed in the canteen.

Members' Club

"But such a canteen attached to a factory, works, departmental store, or office may be a 'members' club.' In that event, the canteen cannot be a 'shop' if members alone are served, since there can be no 'sale' to members in a members' club.

"Nor would it be necessary for the customers to be enrolled in a formally constituted club, provided that the circumstances and conditions under which the canteen is operated sufficiently indicate that it is operated as a club."*

It is quite usual to allow a canteen to be used by persons who are occasionally on the premises at meal-times on bona fide work in connection with the firm, such as motor lorry drivers delivering or removing goods, contractors' employees executing work on the premises. This extension it is considered would not affect the main character of the canteen as above described.

If the canteen is a shop, then the hours of the canteen employees are to be regulated according to the Shops Acts. Here it must also be noted that the Shops Act, 1913, is an enactment specially applying to restaurants and giving restaurant occupiers an alternative scheme of hours to those laid down in the general Shops Acts. As regards the use of the canteen on Sundays, the Shops (Sunday Trading Restriction) Act, 1936, would apply if the canteen is a shop,

*"Law Relating to Shops" by H. Samuels, M.A., pages 13 and 14.

although that Act contains special provision for shops supplying meals. As regards the general closing hours on weekdays it should be noted that there is a special exemption for these in the case of works canteens and the latter may be kept open throughout the night for selling meals and refreshments for consumption anywhere within the works premises.

Whether the canteen workers are shop assistants or not, which question is dependent on the tests set out above, they are not "employed" within the meaning of the Factories Act so as to be within the same rules as to hours as factory workers. This, however, does not mean that the canteen premises themselves are not part of the factory. A canteen serving manual workers as distinct from the staff is part of the factory. It is therefore subject to the factory inspector's control and inspection.

FACTORIES ACT, 1937

Mess Rooms

Under the Factories Act, 1937, women and young persons under 18 are not allowed to remain during a meal interval in a room in which a manufacturing process is being carried on. It is only, however, in particular cases that the employer is required by law to provide mess-room accommodation to enable the workers to take meals elsewhere on the works premises.

These cases include factories in which lead, arsenic or other poisonous substances are used so as to give rise to dust or fumes; accumulator making; cement works; chemical works; clay works; dyeing, with bichromate of potassium or sodium; enamelling of metal or glass; fruit preserving; glass bottle making; gut scraping; herring curing; hides and skins, handling; horsehair from Russia or China; indiarubber works; laundries; lead compounds, making of; lead smelting; oil cake mills; paint and colour making; potteries; sack repairing; sugar refining; tanning with bichromate of potassium or sodium; tanning and liming of hides; tin or terne plate making; wool sorting; yarn heading.

The standard of the accommodation required in these cases varies. As an illustration, that required for the glass bottle making industry is that the mess-room shall be furnished with sufficient tables and chairs or benches with back rests, adequate means of warming food and boiling water, and suitable facilities for washing, comprising a sufficient supply of clean towels, soap and warm water; that the mess-room shall be sufficiently warmed for use during meal intervals; that the mess-room shall be separate from the cloak-room, and shall be placed under the charge of a responsible person, and shall be kept clean.

Another general provision of the Act is that the meal intervals must be at the same time for all women and young persons in the factory. To this rule there are certain exceptions, one being in favour of persons who are necessarily divided into sets for the purpose of taking meals in a mess-room or canteen provided and maintained by the factory occupier to the satisfaction of the district factory inspector.

THE TRUCK ACTS

Finance

If persons using a canteen pay cash for their dinners and not by deductions from wages there is no restriction in law as to the prices which may be charged. If, however, manual workers have the price of their dinners deducted from their wages only the actual cost of the food may be charged to the workers in question. (Truck Act, 1831, sec. 23.) What is meant by the actual cost of the food is not defined in the Act, but it is submitted that it should include lighting, heating, water and labour, but not rent. If actual profit is made in

the canteen by the employer as distinct from the Canteen Committee that may be sufficient to make the canteen a shop and so bring it within the Shops Acts and Shops Regulations. (See page 49.)

As long as there are no deductions from the wages of manual workers for the cost of meals, the canteen charges may include reasonable costs such as a proper proportion of the overheads or a reasonable profit for the purpose of the canteen.

Breakages

As regards covering or recovering the cost of breakages there is nothing to prevent the employees agreeing to an arrangement whereby a fixed charge is made irrespective of whether the person charged is responsible for the breakage or not. An arrangement, however, whereby the amount in question was deducted from wages instead of paid direct would be illegal so far as manual workers are concerned.

With regard to deductions for the actual breakages by a manual worker, the latter is protected by the rule that deductions for injury to the property of the employer may be made only if (a) there is an express written agreement by the employee to such deductions being made on this account, or a notice containing the terms of the contract is posted up so that all may be aware of it; and (b) the deduction does not exceed the actual or estimated damage to the employer and is fair and reasonable, having regard to all the circumstances. (Sec. 2, Truck Act, 1896.)

WAGES OF CANTEEN WORKERS

Food as Wages

Staff canteen workers are sometimes given their food in addition to their wages, and doubts have been expressed as to the legal position, in view of the recent House of Lords decision in *Pratt v. Cook, Son & Co., Ltd.* These workers are engaged in work which has been usually classed as domestic work, and the Truck Acts do not apply to domestic workers at all. It would be otherwise if the canteen were run by the firm for the purpose of their trade, or for profit, and not simply for the convenience of the workers. As a double safeguard, firms may consider it advisable to see that the arrangement is one of actual deduction, and that there should be a written contract whereby the employee authorises the deduction.

RATES AND TAXES

Derating

Although the law has settled that a canteen inside a factory for factory workers is "industrial" and therefore entitled to be treated on exactly the same level as the factory proper (i.e., to be freed from liability to pay three-quarters of the amount otherwise payable, in other words, to be "derated"), cases have come to the Industrial Welfare Society's notice where Rating Authorities do not concede this point without question, and have endeavoured to introduce a discrimination for which they have no legal authority. Sometimes the point escapes the notice of the firm which is thus overcharged, and they pay up without demur, thus not only allowing themselves to be overcharged to the extent of four times the proper amount, but also establishing a dangerous precedent which adversely affects other firms within their particular district. Where any such case has been brought to the notice of the Industrial Welfare Society, the Society has given its immediate attention to the circumstances of the case, and more often than not has been able to advise the firm to carry the matter further, with results which have completely justified the advice thus given.

A factory canteen is entitled to be derated not only if it is actually within the outer walls of the factory. It has also this right if it adjoins the factory or if it is immediately opposite the factory, i.e., on the other side of the street. The fact that a Works Canteen is used for dances or other purposes outside meal-times is no ground for refusing derating, and any such claim by Rating Authorities should be resisted.

*Canteens
away from
the Factory
Premises*

Where the firm finds it necessary to provide a canteen away from the factory premises the canteen is not entitled to be derated, and certain other factors may have to be taken into consideration if the canteen is to be rated equitably, e.g., the non-profit-making character of the premises or the general purposes they serve, but unless these factors are brought to the attention of the Rating Authority or Assessment Committee, mistakes may very well, and often do, occur. Here, too, the Industrial Welfare Society is prepared to give advice to any firm who may entertain any doubt as to whether the assessment of their canteen is a proper one. Schedule A assessments to income tax are also as a general rule based upon the local rates assessment, so that the same considerations apply in this respect also.

The following items of expenditure may be deducted from the firm's profits for purposes of Schedule D tax:—Rent and other running expenses of a works or staff canteen, salary and wages of canteen workers. The cost of the purchase of canteen premises, however, is a capital expense and is not so deductible.

The Industrial Welfare Society would be glad to advise firms who have claims for tax under any schedule in relation to canteen premises.

*Canteen
Profits*

As regards income tax on canteen profits, if the canteen is run as a club and the canteen is only open to club members, income tax on profits does not arise. If, however, the canteen is open to non-members as well, tax is payable on that part of the profits which is derived from receipts from non-members, subject to a deduction of a proportionate part of the expenditure incurred. Where the canteen is run not as a club but by the firm, and the proceeds are devoted to welfare work in the same year, no actual payment of tax on the profits should normally arise, as the amount of profit would be balanced by the amount of deduction for firm's expenditure.

LICENCES

Intoxicants

If it is not desired that drinks should be supplied regularly in the works canteen, but only on special occasions (e.g., visit of sports or games teams from outside works), arrangements can be made with an outside victualler, who will be able to obtain an "occasional licence" to supply drinks on such special occasions. If on the other hand it is desired that intoxicants should be supplied regularly in the canteen, steps can be taken to apply for a licence, or if the employees using the canteen are constituted as a club, the club may apply by registration with the local justices. In either case the supply of drink is restricted to the hours permitted by law. With regard to the supply in the canteen if a club, reference should be made to pages 52 and 53, "Recreation in Industry," published by the Industrial Welfare Society.

Children under 16 may not be in the bar of licensed premises during permitted hours. If the canteen is a registered club as distinct from licensed premises, children may be admitted, but it would be advisable to have their admission regulated by a suitable rule.

*Tobacco and
Cigarettes*

A licence to sell tobacco is necessary unless the canteen is constituted as a club. The general hours of sale are to 8 p.m. Monday to Friday, 9.30 Saturdays. The local authority may, however, make an order fixing an earlier time and may also fix a later time up to 9.30 Mondays to Fridays, 10 p.m. Saturdays. Enquiries, therefore, should be made to the local authority.

As there is no "sale" to a member in a members' club, the members being the joint owners of the club property, a canteen that is a club does not require to be licensed for the sale of tobacco and cigarettes, and therefore there is no restriction as to the hours of sale to members.

The sale of cigarettes to children under 16 is prohibited and is a penal offence. (Children and Young Persons Act, 1933.) It is an offence if the cigarettes are sold to the child whether for his own use or whether for the use of someone else. (Ibid., sec. 9.) If the cigarettes are supplied by automatic machine the canteen may be ordered by the Court to take proper precautions to prevent the machine being used by children under 16 or to remove it. Non-compliance with such an order when made is punishable by a fine of £5. (Ibid., sec. 7 (2).)

ACCIDENTS AND INJURIES

An employer will be responsible for accidents in the canteen in either of the two following events:—

- (a) If the accident arises from the defective state of the premises and the firm has made itself responsible, either by implication or by express agreement, for their proper maintenance.
- (b) If the injured person was injured in the course of his duty as an employee of the firm, i.e., if he were there on the firm's instructions.

*Workmen's
Compensation*

In one case a girl left the works during the dinner hour and went to a canteen provided by the employers in another part of the premises. The canteen and the works were within the same curtilage, but the canteen could only be reached by the street. The workers were not obliged to use the canteen. After finishing her dinner the girl was hurrying down a flight of stone stairs leading from the canteen into the street in order to reach work, when she slipped and broke her ankle. She claimed compensation. It was held that the injury arose in the course of, as well as out of, the employment, and the ground of the judgment was that the course of employment in this case included the traversing the means of return to the work. (S. W. G. Armstrong, Whitworth & Co., Ltd., v. Redford, 1920, A.C. 757.)

In another case a youth claimed compensation for eye injuries sustained, while he was sitting at a table in the firm's canteen after his meal, from a dart rebounding from a dart board in another part of the room. The canteen was managed by an independent contractor, who took the profits. It was contended on behalf of the boy that the dinner hour did not constitute a break in his employment, and this submission was upheld by the Court, which held that the taking of meals in the canteen was incidental to his employment, and awarded compensation on that basis.

It follows from the above cases that whoever is responsible for the maintenance of the canteen premises, whether the employer or a Club Committee, must exercise strict control over the conduct of the premises and must take such practical steps as can best eliminate dangerous activities; e.g., steps through the Company's responsible official to ensure that the means of playing

dangerous games such as dart boards are not available, and notices displayed prohibiting the playing of such games. Where such games are played, that part of the canteen should be marked off and there should be proper safeguards for preventing the escaping of darts, etc., to other parts of the room. Notices disclaiming liability for accidents or declarations of employees agreeing to accept liability would not absolve the firm or Club Committee, as the case may be, in claims under the Workmen's Compensation Act, nor would such notices or declarations necessarily be sufficient in the case of injuries attributable to the negligence of the firm or committee.

If unfit food is supplied in the canteen and injury results, the firm or Club Committee, whoever is responsible for the supply of food, has the same common law and statutory liability as other restaurant proprietors.

MUSIC IN CANTEENS

There has been no clear decision on the question whether the provision of music to employees in a works canteen during their dinner hour makes the performance "public" so as to be within the Copyright Acts, and in the absence of such authority each case has to be decided on the tests usually applied, namely, the number and character of the audience and the extent of injury to the composer.

"Public"

Performances

If the performance is "public," it is necessary to take care not to infringe the composer's performing rights, even though the music may be by gramophone or wireless. In the case of gramophone records there may be an additional copyright belonging to the owner of the record, and his license would also be necessary to the performance. In so far as performances of musical items controlled by the Performing Right Society are concerned, the Industrial Welfare Society has an agreement with that body whereby its members may obtain annual licenses at considerably reduced fees, details of which can be obtained on application to the Industrial Welfare Society.

CANTEEN STAFF AND UNEMPLOYMENT INSURANCE

*Unemploy-
ment
Insurance*

The serving and kitchen staff in a firm's canteen, as normally run, can generally be regarded as "domestic workers," and were, in the past, exempted from the Unemployment Insurance Scheme. Now, however, the Ministry claims that they are insurable by virtue of the Insurable Employments Regulations, 1937 (S.R. and O., 1937, No. 1207 which, while not expressly referring to canteen workers, brought within the scope of the scheme "persons employed in domestic service in any trade or business not carried on for gain."

CANTEEN REFUSE

Refuse

The removal of trade refuse is charged for by local authorities. Refuse from a works canteen is entitled to be treated as domestic refuse.

APPENDIX I

SOURCES OF FURTHER INFORMATION

BUILDING, FITTINGS AND EQUIPMENT

British Commercial Gas Association, 1 Grosvenor Place, London, S.W.1.
Building Centre, Ltd., 158 New Bond Street, London, W.1.—Technical information on building materials and equipment.
British Electrical Development Association, 2 Savoy Hill, W.C.2.
Electric Lamp Manufacturers' Association, 2 Savoy Hill, W.C.2.
Royal Institute of British Architects, 66 Portland Place, London, W.1.—Supplies names of architects with experience of canteen design.
Institution of Heating and Ventilating Engineers, 22 Russell Square, London, W.C.1.
Illuminating Engineering Society, 32 Victoria Street, London, S.W.1.
Catering Equipment Manufacturers' Association, 6 Holborn Viaduct, E.C.
Manufacturers of equipment are listed on page ix.

STAFF AND SERVICE

Industrial Catering Association, Hon. Sec., C. C. Overend, 63 North Road, Richmond, Surrey.
Canned Foods Advisory Bureau, Ltd., 243 Regent Street, London, W.1.
Industrial Welfare Society, Incorporated, 14 Hobart Place, London, S.W.1.
Institute of Good Housekeeping, 49 Wellington Street, London, W.C.2.
Institutional Management Association, 29 Gordon Square, London, W.C.1.
Service Bureau of the "Caterer and Hotelkeeper," 1 Dorset Buildings, London, E.C.4.

TRAINING

Domestic Science Training Colleges.

BIBLIOGRAPHY

GENERAL CANTEEN SERVICE

Aids to Catering by F. E. Findlay Shirras (Dent).
Mess Rooms and Canteens at Small Factories (H.M. Stationery Office).
Practical Catering by A. F. Part and N. B. Robinson (Practical Press, Ltd.).
Scientific Catering for Institutions by J. de K. Whitsed (Balliere, Tindall and Cox).

CANTEEN SERVICE AND MENUS

Communal Feeding in War Time by Women's Voluntary Services (H.M. Stationery Office).
Kitchen Management by E. M. Benson (Dent).
Menus and How to Make Them Pay by N. B. Robinson (Practical Press, Ltd.).
School Dinners in War Time, issued by the Association of Teachers of Domestic Subjects.

GENERAL DIETETICS

Communal Dietaries in Wartime by Gloucestershire Training College of Domestic Science (University of London Press, Ltd.).
Diet and Physical Efficiency by Haggard and Greenberg (Oxford University Press).
Food, Health and Vitamins by R. H. A. Plimmer and V. G. Plimmer (Longmans Green).
Food and the Principles of Dietetics by Hutchison and Mottram (Arnold).
Food Tables by V. H. Mottram and Ellen M. Radliff (Arnold).
Nutrition and the War by Dr. Geoffrey Bourne (Cambridge University Press).

REVIEW OF PRESENT-DAY NUTRITION

Feeding the People in Wartime by Sir John Orr and David Lubbock (Macmillan).
The Nation's Larder. Lectures at the Royal Institution (G. Bell & Sons).
Workers' Nutrition and Social Policy by International Labour Office (P. S. King & Son, Ltd.).

PERIODICALS

The Caterer and Hotel Keeper, 6d. (weekly).
Industrial Welfare and Personnel Management, 1/- (monthly).

APPENDIX II

EMERGENCY CANTEENS

Special War needs

It may prove necessary in many works to establish some kind of communal feeding provision at very short notice, and resort will need to be made to some temporary arrangement. Many factors may make it essential for the firm to undertake the serving of hot meals where this has not hitherto been necessary.

In some cases the temporary feeding arrangements will be planned to tide over the period before a permanent canteen can be built and brought into operation. It is important, however, that even if premises are of a makeshift kind, the food itself should be well cooked and attractively served. Good food during a meal break can have an influence which should not be underestimated in keeping up spirits and securing willing co-operation during overtime and the other special stresses of to-day.

THE MESS-ROOM

In a few cases the need for feeding arrangements may be met with just the provision of a mess-room where the workers can eat food brought with them and have facilities for making tea and if possible for heating up their own food. A room will need to be set aside as the mess-room and tables, chairs or benches provided. A hot water boiler and a sink are the only essentials. A hot cupboard is often desirable. If large numbers are anticipated, however, it may be desirable to consider the building of a counter, where hot pies, soup, hot drinks, chocolate, cakes, sandwiches, etc., may be obtained. Such an elaboration of the simple mess-room will be appreciated and throws little extra work on the firm in organising or maintaining this service. The provision of light refreshments in this way, however, cannot be considered as an adequate substitute for the canteen proper. It is important that the mess-room be kept clean and waste paper baskets should be available and someone detailed to sweep or wash it out after each meal.

THE CANTEEN

Estimating Requirements

If a temporary canteen is to be set up some preliminary investigation will have to be made along the same lines as for a permanent one. Considerations of the type of meals and the maximum numbers using the canteens at any one time, will determine the size of room required, the amount of necessary equipment, the costing for the canteen, and the staffing arrangements. Circumstances will determine whether an existing room or rooms in the factory can be set aside for the canteen or whether a temporary building will need to be erected. Importance must attach to accessibility for the workpeople, ease in introducing supplies of water, gas or other fuel, ease in providing ventilation and heating for the dining-room and kitchen, and possibility of housing stores conveniently, where they will keep fresh. Temporary buildings can quickly be constructed from timber, asbestos and other materials, and there are many firms specialising in prefabricated buildings which can be dispatched and erected with minimum loss of time. The kitchen should be screened as far as possible from the dining-room and the serving counter be of sufficient length to prevent congestion in the dining-room and the kitchen.

EQUIPMENT AND ORGANISATION OF SERVICE

The provision of equipment may present one of the more difficult problems. Some of it may be hired from the local gas or electricity companies and some may be obtainable second-hand from catering firms and elsewhere. Tables and benches or chairs will need to be bought as well as crockery, cooking utensils, cutlery and other equipment of a similar nature (cf. list of suppliers, page ix.). It may, however, be decided to call in a firm of outside caterers to organise the whole service of meals, and in this case arrangements can be made for them to include in their service the hire of all necessary equipment. Large firms of caterers are sometimes in a position to provide a canteen service in 48 hours, given suitable premises, and many feel that this is the easiest and best way to arrange for feeding facilities in an emergency.

Staff

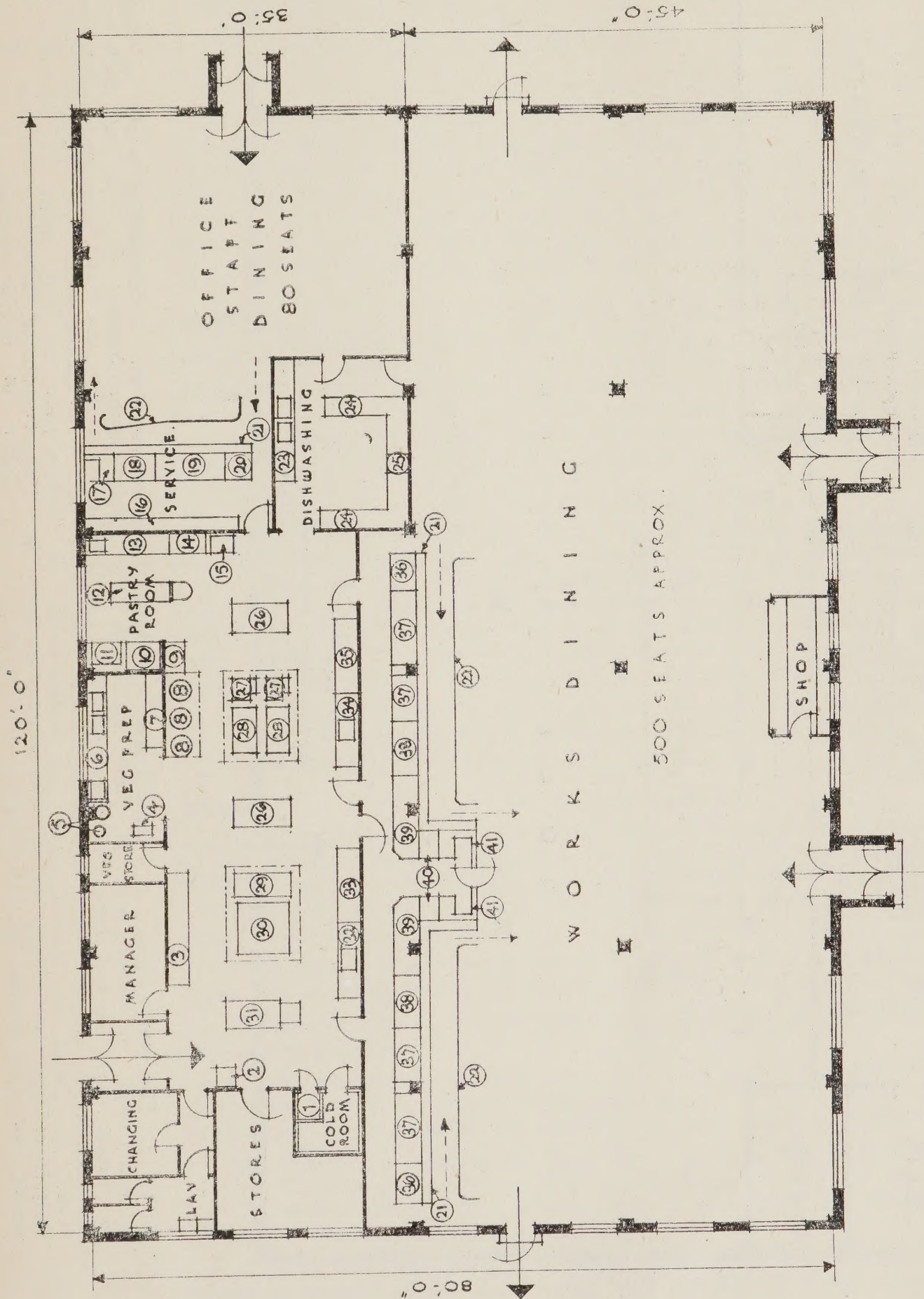
If the firm itself undertakes the equipping, management and staffing of the canteen it is essential that a competent manager or manageress be appointed to supervise all the arrangements and that he or she be provided with an adequate number of assistants. Staffing may need to be on a more generous scale in the temporary canteen because of inevitable difficulties of organisation, lack of labour-saving appliances, etc.

The cheerfulness and efficiency of the staff can make the most makeshift canteen a success, but it is essential if a high standard of service is to be maintained that their conditions of work in all respects are good. Co-operation with customers is as important if not more so than in the permanent canteen.

APPENDIX III

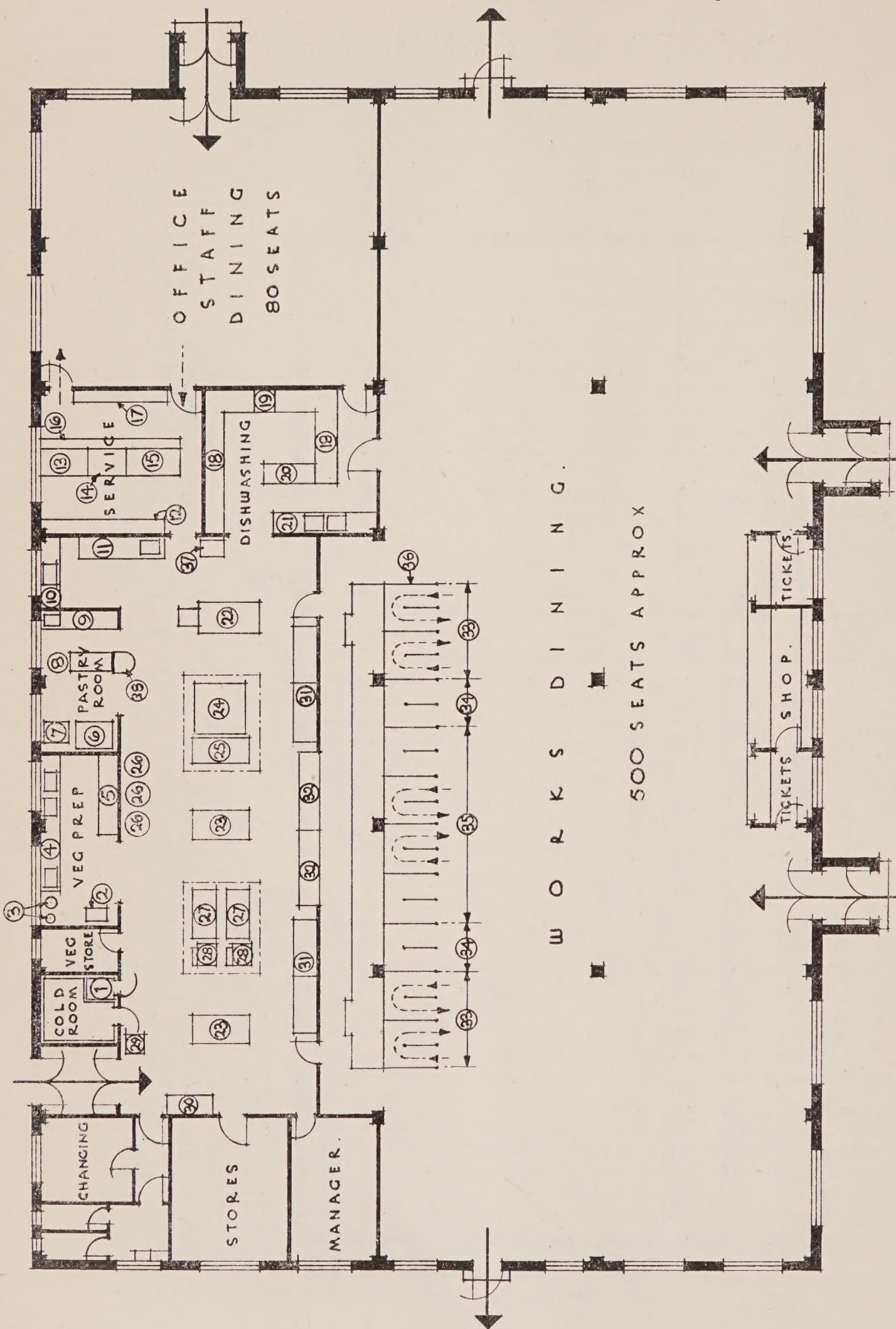
SUGGESTED CANTEN LAYOUTS

COUNTER SERVICE FOR 500 PERSONS



- KEY. 1. Fish compartment. 2. Weighing machine. 3. Bench. 4. Potato chipper. 5. Potato peeler and peel trap. 6. Preparation bench. 7. Bench. 8. Boiling pans. 9. Bench. 10. Pastry oven. 11. Cooling rack. 12. Table and mixer. 13. Preparation bench. 14. Bench. 15. Griller. 16. Bench. 17. Cash section. 18. Tea and coffee. 19. Hotplate. 20. Cold sundries. 21. Tray rail. 22. Guide rail. 23. Teak wash-up sinks. 24. Dish-washing tabling. 25. Dish-washing machine. 26. Table. 27. Steamers. 28. Fish range. 29. Boiling table. 30. 4-oven range. 31. Table and chopping block. 32. Meat preparation bench. 33. Bench. 34. Fish preparation bench. 35. Bench. 36. Cold Sundries. 37. Hotplate. 38. Cold sweets. 39. Tea service. 40. Cutlery. 41. Cash section.
- APPROXIMATE SCALE: $\frac{1}{20}$ in. = 1 foot.

DIVIDED COUNTER OR HATCH SERVICE FOR 500 PERSONS



- KEY. 1. Fish compartment. 2. Potato chipper. 3. Potato peeler and peel trap. 4. Preparation bench. 5. Bench. 6. Pastry oven. 7. Cooling rack. 8. Table. 9. Bench. 10. Fish preparation bench. 11. Meat preparation bench. 12. Bench. 13. Tea and coffee. 14. Cold sundries. 15. Hotplate. 16. Tray rail. 17. Trays and cutlery bench. 18. Dish-washing tabling. 19. Dish-washing machine. 20. Bench. 21. Teak wash-up sinks. 22. Table and chopping block. 23. Tables. 24. 4-oven range. 25. Boiling table. 26. Boiling pans. 27. Fish range. 28. Steamers. 29. Weighing machine. 30. Bench. 31. Carving table and hot closet. 32. Tall hot cupboards, sliding doors both sides. 33. Tea service. 34. Cold service. 35. Hot service. 36. Barrier rails. 37. Griller. 38. Mixing machine.
- APPROXIMATE SCALE: $\frac{1}{18}$ in. = 1 foot.

APPENDIX IV

FLOORING, DECORATION AND FURNITURE

The flooring of the canteen is an important factor and care should be taken to choose materials which will be not only durable but warm and comfortable to the feet and easily cleaned and will harmonise with the decorations.

Dining-room

The choice for the dining-room will depend on whether it is also to be used for dancing.

FLOORS NOT USED FOR DANCING

Deal boards and cork lino on concrete are cheap but not good either for comfort or for appearance. Rubber is warm to the feet and quiet but it is expensive and draws the feet of those who have to be constantly walking on it. A heavy-quality linoleum is serviceable and economical, has no joints to harbour dirt, is reasonably quiet and may be quite attractive. A jaspe or moire pattern will not easily show marks. A good composition linoleum with a percentage of compressed rubber gives warmth and resilience, is made in pleasing colours and is easily cleaned. Terazzo may be used, especially if there are heating panels in the floor.

FLOORS TO BE USED FOR DANCING

Floors for dancing must be of wood. Tongued and grooved board can be specially prepared for social functions, and hard wood strip or wood blocks give a good service if they are regularly cleaned and polished. Soft pine is good for blocks. The hard woods, such as oak, jarrah, and some of the Burmese woods, are good but more expensive. Maple is serviceable but expensive and not very pleasing. Where strip timber is used it is better for dancing when laid on joists rather than on concrete. A spring floor is best for dancing.

KITCHEN AND SERVICE AREA

For the kitchen floor it is essential that the surface should be non-slip, impervious to water and grease and easily washed. Grano and porphyritic tiles are non-slip but the grano is inclined to look drab and most of the composition surfaces wear down very quickly. It is generally found that the best surface for constant scrubbing and heavy wear is the 6in. heather or red quarry tile. The tiles are rather hard to the feet, however, and it may be possible to have tiles under and around the equipment and wherever much water or grease is liable to be split but a more resilient surface, say, jointless asphalt composition, elsewhere.

The same flooring should be used for the service area and under the counters as for the kitchen, but as the assistants have to stand here for considerable periods, movable rubber mats or raised boards may be usefully provided.

CANTEEN DECORATION

Kitchen

By far the best surface for the kitchen walls is tiles in white or other light colours. These are very easily cleaned and impervious to splashes of all kinds and require no redecorating. Where, owing to the high initial cost of tiling, it is not possible to continue the tiles up to the ceiling they should reach to about 6 feet, or at least to above the top of the highest piece of equipment in the kitchen.

If, however, it is not possible for the kitchen to be tiled, a good washable oil gloss paint is the best substitute, and will stand up reasonably well to the effects of heat and steam.

Information on paints may be obtained from The Paint Research Station, Waldegrave Road, Teddington, Middlesex.

Dining-rooms

For the dining-room the best surface is a good quality washable paint, as this is bright, durable and easy to keep clean. Distemper is not so durable. Decorative plaster and plywood veneers may also be used but are inclined to get very shabby near the floor.

The dining-room walls should give a pleasant, sunny effect. It is often found convenient to have the wall painted in two shades. For the upper half the best shades for reflecting light are whites, creams, yellows and light buffs; if these are a little cold, good, sunny shades are primrose, peach, light amber, almond green.

A useful pamphlet and chart entitled "Illumination Design Data," giving the reflection factors of colour surfaces, may be had from the Electric Lamp Manufacturers' Association, 2 Savoy Hill, W.C.2.

The lower half, up to about 4 feet, is usually darker, as it is apt to get rubbed and dirty, but it is quite unnecessary for it to be drab. Good colours are medium greens, greys, burnt orange and tan. The smaller the canteen the lighter and softer should be the colours used. For the woodwork contrasting colours or different tones of the colours on the walls may be used. Brilliant colours, scarlets and royal blues, etc., should be used sparingly in a small room and not for wide expanses, but can be introduced effectively into details. One large canteen, painted in a light colour, had the edges of the mouldings picked out in scarlet. Girders, pipes, light fittings, etc., if they cannot be hidden, can become, by judicious painting, a part of the decorative scheme.

CURTAINS

Curtains are usually desirable in the canteen, as they make the dining-room look less like a part of a factory or institution, but in well-decorated modern buildings the canteen has been found to look equally well without them. Light washable curtains, cottons, gingham, folk weaves, etc., are suitable for small windows; for large windows, heavier materials are better. With bright walls curtains are better in soft or dull colours, but with pale or dull walls bright curtains in patterns or checks may be attractive, and rich deep colours look well in large rooms with white or cream walls. It is sometimes useful to note that short, wide windows are made to look higher by curtains reaching to the floor and, conversely, that short curtains make windows look wider. As windows and skylights have to be completely blacked out at night, blinds, heavy curtains or shutters will have to be fitted. Light traps will also have to be placed at outside entrances. Suggested black-out fittings are given in the Home Office, Factory Department, booklet "Factory Ventilation in the Black-Out" (H.M.S.O.) and in "War Time Lighting Restrictions for Industrial and Commercial Premises," A.R.P. (H.M.S.O.).

*Darkening
against Air
Raid*

PICTURES

Various forms of mural decorations are possible for the canteen; for instance, a permanent design may be stencilled on the wall, but this needs to be really well done to be effective. Double-crown posters, such as those issued by the railway companies and the London Passenger Transport Board, designed by famous artists, are effective and cost about 5/-, sometimes a little more. Shell Mex have also issued very attractive posters, which may be obtained from Picture Hire, Ltd., 56 Brook Street, London, W.1. Posters advocating the formation of allotment or other food-producing clubs, or encouraging saving or the elimination of waste are often exhibited in canteens and can be designed to serve a decorative as well as propaganda purpose.

Posters

*Colour
Reproductions*

Reprints of good pictures look well and offer a wide choice, but large reprints are not cheap. There are, however, now two firms operating picture hire schemes, Picture Hire, Ltd., and School Prints, Ltd., 44 Gordon Square, W.C.1. A further suggestion is to have exhibitions of the work of photographic or art clubs in the works, or perhaps a permanent selection of prize-winning pictures or photographs. A showcase may be kept in the canteen with cups or other trophies won by works clubs and a record of achievements, but these must be well looked after.

FURNITURE

Tables

In choosing tables for the canteen the following points have to be taken into consideration:

(a) Size of Tables. The provision of tables seating four, six, eight or more persons has already been discussed on page 11. Whichever are chosen, diners should not be cramped at tables, the larger sizes given below being regarded as preferable:—

Square tables for four—2ft. square to 2ft. 6in. square.

Rectangular tables for four—2ft. to 2ft. 6in. by 3ft. 6in. to 4ft.

Tables for six—2ft. to 2ft. 6in. by 6ft.

Tables for eight—2ft. 3in. to 2ft. 6in. by 7ft. to 8ft.

Table Tops

(b) Cloths and Table Tops. Cloths are frequently provided for the staff canteen and sometimes in the smaller works canteens. For the latter, coloured cloths, checks, etc., to match the general colour scheme are both attractive and practical. For the larger works canteen cloths are not usually provided, and the choice of surface for the tables is important. It must be easily cleaned—preferably needing only to be washed over with a damp cloth—not easily marked, pleasing in appearance and not too noisy or cold and slippery to the touch.

Linoleum

A good quality linoleum on a base of laminated wood with an edge of oak or aluminium is one of the most suitable surfaces. It is hard and durable, quite easily washed, and can be had in attractive colours. Unless a jaspe or moire pattern is chosen it will show burns from cigarette ends, but if sufficient ash trays are provided these should not often occur.

Vitreous Enamel Vitreous enamel is easily cleaned and may be had in attractive colours but is very expensive and rather noisy and unpleasant to the touch. Where the workers' clothes are liable to have oil on them which might stain wood or linoleum the extra expense of the enamel may be worth while. It is less suitable for folding tables, as it is liable to chip.

Plastics, etc. Asbestos and plastics, especially Bakelite and "Turnall" asbestos, are excellent and likely to be much used in the future, but are usually found too expensive as yet.

Other Surfaces A wooden surface is not to be recommended, as it is difficult to keep clean, marks badly and is not pleasant in appearance after the newness has worn off. A wooden top cellulose-enamelled, however, is serviceable and more pleasing. Glass and tile tops are little used to-day.

Types of Tables (c) Structure. If the canteen is used for meals only, rigid tables may be provided, but if it is used also for social functions, folding or nesting tables will be necessary.

1. Rigid tables may have wooden frames, tubular metal frames or angular metal frames.
2. Folding tables may be had with wooden frames which are really strong, rigid in use and durable. Folding tubular-framed tables are also available.
3. Nesting tables with tubular frames are light to handle and take up little room in storage. It should be noted that nesting tables will have no bar or footrest underneath, an advantage from the point of view of sweeping, but many of the shorter people will not find it comfortable if neither chair nor table has a footrest.

A small shelf under the table for handbags, papers or even used plates, is a real convenience, but very few designs include it.

CHAIRS

Canteen chairs, besides being able to stand up to hard wear, should be designed to give a reasonable measure of comfort. It is desirable for them to have a semi-arm, or at least a curved back. If the canteen is to be used for social functions they will have to be easily moved and stored. Folding chairs are not really desirable, as they are of necessity uncomfortable.

Types of Chairs 1. Wooden chairs are still the most widely used for canteens and are usually of the Hardwood Bentwood or Windsor Hardwood type, with curved backs and shaped seats. There is now on the market a pattern specially designed for stacking, but costing slightly more than the ordinary type. A cheaper, straight-backed chair for stacking is also available.

2. Metal-framed chairs, although dearer than the wooden ones, are becoming increasingly popular because, besides being comfortable and attractive, they are durable, light to move and easily stacked and cost little for maintenance. One type of chair with an angular metal frame has a wooden or padded back and seat and a holder underneath for a strip of metal to batten the chairs together in rows for concerts, etc. Tubular metal nesting chairs have backs and seats of bent plywood or stretched canvas. The wooden seats are easily wiped over, but the others are more comfortable; the canvas can be detached for cleaning and can be had in attractive colours to match the decorations. These chairs take up very little room when stacked and can thus be easily disposed of for social functions or for cleaning. A small trolley can be had for moving the stacks.

Noise Unless the flooring is of resilient material the chairs should be fitted with rubber feet to reduce noise.

Note.—The tubular metal frames for the tables and chairs may be stove enamelled in any colour or sprayed with bronze, gilt or aluminium, giving a slightly dearer but more durable finish, or they may be chromium-plated at a slightly higher cost again.

NEWSPAPERS AND RADIO

A very successful experiment has been carried out in one or two canteens where a wide selection of daily papers and periodicals is provided. These may be attached to reading stands round the walls as in the reading rooms of public libraries.

Popularity of Radio

Evidence as to the popularity of the radio in the canteen varies. In many canteens the votes for and against appear to be about equal and in some it has been discontinued by request. On the whole it is probably more popular amongst female employees than male, but careful enquiry should be made both before installation and after a short trial. In any case it is probably not desirable for it to be on during the whole of the lunch period. More popular may be the provision of a piano and draughts, dominoes, chess, etc.

APPENDIX V

PORTIONS

The following table gives the quantities of food per portion (unless otherwise indicated) needed to give requisite food value for different grades of workers. Restricted meat supplies will mean that manual workers will need extra food in the form of potatoes, or bread and cheese, rather than an increase in the meat supply which is impossible under present circumstances and not really necessary.

TABLE OF BASIC QUANTITIES

<i>Light Work.</i>	<i>Moderate Work.</i>	<i>Manual Work.</i>
<i>Clerical Workers, Women Operators</i>	<i>Machine Operators</i>	<i>Porters, Foundry and Furnace Men, Smelters, etc.</i>
<i>Joints.</i>		
2—2½ ozs. portion cooked meat.	2½—3 ozs. portion cooked meat.	2½—3 ozs. portion cooked meat.
<i>Stew.</i>		
4½ ozs. (raw meat without bone). (7 portions to 2lbs.)	5½ ozs. raw meat (6 portions to 2 lbs.)	5½ ozs. raw meat.
8 ozs. meat (with bone) e.g. scrag or middle neck of mutton.	10 ozs. meat (with bone).	10 ozs. meat (with bone).

MEAT SERVED WITH YORKSHIRE PUDDING AND STUFFING

2 ozs. portion cooked meat.	2½ ozs. portion cooked meat.	2½ ozs. portion cooked meat.
<i>Yorkshire Pudding.</i>		
10 portions to 1 pint.	8 portions to 1 pint.	8 portions to 1 pint.
<i>Stuffings.</i>		
20 portions to 1 lb. bread.	15 portions to 1 lb. bread.	15 portions to 1 lb. bread.

MEAT PIES, PUDDINGS OR STEW WITH DUMPLINGS ADDED

1½ ozs. flour.	2 ozs. flour.	2 ozs. flour.
½—¾ oz. fat.	3—1 oz. fat.	¾—1 oz. fat.
3½ ozs. meat. (9 portions to 2 lbs.)	4½ ozs. meat. (7 portions to 2 lbs.)	5 ozs. meat.

STEWES OR ENTREES WITH PULSE VEGETABLES ADDED

3 ozs. meat (without bone).	4 ozs. meat (without bone).	4 ozs. meat (without bone).
6 ozs. meat with bone.	8 ozs. meat with bone.	8 ozs. meat with bone.
1 oz. pulses.	1 oz. pulses.	1 oz. pulses.

DISHERS WITH A SMALL QUANTITY OF MEAT OR OFFAL

(quantities using 1 lb. of main ingredient are given as this provides an easy medium for calculation.)

Savoury Oatmeal Roll

10 portions.	
1 lb. oatmeal.	Stock.
1 lb. liver.	1 onion.
¼ lb. fat.	Seasonings.

8 portions.

8 portions.

Risotto.

10 portions.	
1 lb. rice.	
¾ lb. cooked meat.	
¼ lb. cheese.	
2 onions.	
Tomato puree or canned tomatoes.	

8 portions.

8 portions.

<i>Light Work.</i>	<i>Moderate Work.</i>	<i>Manual Work.</i>
<i>Beans and Bacon.</i> 10 portions. 1 lb. haricot beans. 1 lb. bacon or scraps of ham. Pickled pork (cut in dice).	8 portions.	8 portions.
MEATLESS DISHES		
<i>Macaroni Cheese.</i> 15 portions. 1 lb. macaroni. 1 lb. grated cheese. 3 pints white sauce. Seasonings.	12 portions.	12 portions.
<i>Cheese Pudding.</i> 12 portions. 1 lb. bread. 1 quart milk. 4 eggs. $\frac{1}{2}$ lb. cheese. Seasonings.	10 portions.	10 portions.
FISH		
<i>Fried Fillets.</i> 5 ozs. raw fillet.	6 ozs. raw fillet.	6 ozs. raw fillet.
<i>Fish Pie or made up dish.</i> 3 ozs. cooked fish.	3 ozs. cooked fish.	3 ozs. cooked fish.
<i>Herrings.</i> 1 or 2 weighing about 6 ozs.	1 or 2 weighing 7-8 ozs.	1 or 2 weighing 7-8 ozs.
VEGETABLES		
<i>Potatoes.</i> 1 portion. 5 ozs. cooked potatoes (about 2 potatoes). 100 portions. 40 lbs.	1 portion. 6-7 ozs. cooked potatoes (2 large or 3 small). 100 portions. 48 lbs. potatoes.	1 portion. 8 ozs. cooked potatoes (3-4 potatoes). 100 portions. 65 lbs. potatoes.
<i>Green Vegetables.</i> 3 portions to 1 lb. 5 ozs. cooked portion.	3 portions to 1 lb. 5 ozs. cooked portion.	3 portions to 1 lb. 5 ozs. cooked portion.
<i>Root Vegetables.</i> 4 portions to 1 lb. 4 ozs. cooked portion.	4 portions to 1 lb. 4 ozs. cooked portion.	4 portions to 1 lb. 4 ozs. cooked portion.
PUDDINGS		
<i>Suet Pudding.</i> $1\frac{1}{2}$ ozs. flour. $\frac{1}{2}$ oz. suet.	2 ozs. flour. $\frac{2}{3}$ oz. suet.	2 ozs. flour. $\frac{2}{3}$ oz. suet.
<i>Sponge Pudding.</i> $1\frac{1}{2}$ ozs. flour. $\frac{1}{2}$ oz. margarine. $\frac{3}{4}$ oz. dates, jam, syrup or condensed milk to sweeten.	2 ozs. flour. $\frac{2}{3}$ oz. margarine. 1 oz. dates, raisins, jam, syrup or condensed milk to sweeten.	2 ozs. flour. $\frac{2}{3}$ oz. margarine. 1 oz. dates, raisins, jam, syrup or condensed milk to sweeten.
<i>Milk pudding or Blancmange served with fruit.</i> 4 portions to the pint.	4 portions to the pint.	4 portions to the pint.
<i>Tart or Flan.</i> $1\frac{1}{2}$ ozs. flour. $\frac{1}{2}$ oz. fat. $\frac{1}{4}$ - $\frac{1}{3}$ lb. fruit.	$1\frac{1}{2}$ ozs. flour. $\frac{1}{2}$ - $\frac{1}{4}$ ozs. fat. $\frac{1}{4}$ - $\frac{1}{3}$ lb. fruit.	2 ozs. flour. $\frac{3}{4}$ -1 oz. fat. $\frac{1}{3}$ lb. fruit.

MENUS

Menus to-day can only be given as suggestions, as dishes supplied depend entirely on available supplies. Those included in this booklet are planned to illustrate points made in the chapter on food as well as serving as examples of the sort of menu that can be provided when certain equipment is available.

The food is interesting and palatable. Variety is important, not only because it makes the menu more attractive, but it safeguards the balance of the diet. Provision is made for the protective foods as milk, fish, liver, vegetables, in all forms, and fresh fruit. Special note should be made of these as they are often scantily supplied in the canteen. An attempt has been made to suggest sweets which will have protective qualities as well as energy-giving ones, which is often the only food value of a pudding.

WINTER MENUS FOR A CANTEEN AVERAGING ABOUT 200 CUSTOMERS DAILY

	MONDAY	WEDNESDAY
<i>Soup</i>	Tomato Soup.	Lentil Soup.
<i>Fish</i>	Grilled Herrings.	
<i>Entree</i>	Mutton Pie.	Vegetables au Gratin.
	Mince Collops.	Fried Sweetbreads.
		Roast Pork and Apple Sauce.
<i>Potatoes</i>	Roast.	Roast Potatoes.
	Steamed.	Mashed Potatoes.
<i>Vegetables</i>	Cabbage.	Greens.
	Dried Peas.	Carrots.
<i>Hot Sweets</i>	Steamed Prince Albert Pudding.	Steamed Chocolate Pudding and Sauce.
	Rice Pudding.	Queen of Puddings.
<i>Cold Sweets</i>	Fresh Fruit Salad.	Stewed Figs and Custard.
	TUESDAY	THURSDAY
<i>Soup</i>	Vegetable Soup.	Pea Soup.
<i>Fish</i>	Fish Pie.	
<i>Entree</i>	Curried Beef and Rice.	Liver and Bacon.
		Grilled Chops.
<i>Joint</i>	Roast Stuffed Shoulder or Leg of Mutton.	Boiled Mutton and Dumplings.
<i>Potatoes</i>	Roast Potatoes.	Mashed Potatoes.
	Mashed Potatoes.	Baked in Jackets.
<i>Vegetables</i>	Braised Onions.	Carrots and Turnips.
	Brussels Sprouts.	Baked Tomatoes.
		Canned Spinach.
<i>Hot Sweets</i>	Steamed Date Pudding.	Steamed Marmalade Pudding.
	Apple Tart.	Raisin and Rice Pudding.
<i>Cold Sweets</i>	Rice Shape and Pineapple.	Stewed Apples and Custard.
	FRIDAY	
<i>Soup</i>	Scotch Broth.	
<i>Fish</i>	Fried Cod Steaks.	
<i>Vegetarian</i>	Savoury Rice.	
<i>Entree</i>	Toad in the Hole.	
<i>Potatoes</i>	Chips.	
	Steamed.	
<i>Vegetables</i>	Cabbage.	
	Braised Celery.	
<i>Hot Sweets</i>	Steamed Jam Sponge.	
	Treacle Tart.	
<i>Cold Sweets</i>	Prune Mould.	

WINTER MENUS FOR A CANTEEN AVERAGING ABOUT 500 CUSTOMERS DAILY

MONDAY

<i>Soup</i>	Green Pea Soup.
<i>Vegetarian Dish</i>	Curried Vegetables.
<i>Fish</i>	Sardines on Toast.
<i>Entree</i>	Sausages and Tomatoes. Ragout of Veal. Rabbit Pie.
<i>Potatoes</i>	Roast Potatoes. Mashed Potatoes.
<i>Vegetables</i>	Cauliflower. Swedes.
<i>Hot Sweets</i>	Steamed Fig Pudding and Sauce. Apricot Tart.
<i>Cold Sweets</i>	Cornflour Mould and Mandarins. Banana Trifle.

TUESDAY

<i>Soup</i>	Potato and Tomato Soup.
<i>Vegetarian Dish</i>	Spaghetti and Tomato.
<i>Fish</i>	Grilled Cod Steaks.
<i>Entree</i>	Steak and Kidney Pudding.
<i>Joint</i>	Roast Mutton.
<i>Potatoes</i>	Potatoes in Jackets. Chips. Boiled Potatoes.
<i>Vegetables</i>	Cabbage. Braised Onions. Baked Tomatoes.
<i>Hot Sweets</i>	Apple and Date Tart and Custard. Golden Pudding. Sago Pudding.
<i>Cold Sweets</i>	Pineapple Jelly. Fresh Fruit Salad.

WEDNESDAY

Mixed Vegetable Soup.
Stuffed Potatoes.
Fish au Gratin.
Shepherd's Pie.
Boiled Beef and Dumplings.
Baked in Jackets.
Mashed Potatoes.
Carrots and Turnips.
Brussels Sprouts.
Apple and Raisin Charlotte.
Steamed Sultana Sponge.
Mixed Fruit Flan.
Chocolate Blancmange.
Fresh Fruit.

THURSDAY

Beef Broth.
Scotch Eggs or Tomatoes.
Savoury Liver and Bacon.
Irish Stew.
Roast Beef and Horseradish Sauce.
Roast Potatoes.
Mashed Potatoes.
Greens.
Braised Celery.
Plum Dumpling.
Bread Pudding.
Jam Tart.
Stewed Prunes and Custard.

FRIDAY

<i>Soup</i>	Celery Soup.
<i>Fish</i>	Fried Fillets of Fish.
<i>Vegetarian</i>	Vegetable Pie.
<i>Entree</i>	Savoury Pork Chops.
<i>Potatoes</i>	Chips. Steamed Potatoes.
<i>Vegetables</i>	Brussels Sprouts. Mashed Swedes. Raw Tomatoes.
<i>Hot Sweets</i>	Mincemeat Roll. Chocolate Queen of Puddings.
<i>Cold Sweets</i>	Pear Conde. Fresh Fruit.

SUMMER MENUS FOR A CANTEEN AVERAGING ABOUT 700 CUSTOMERS DAILY

MONDAY

<i>Soup</i>	Curry Soup.
<i>Vegetarian Dish</i>	Egg Mayonnaise.
<i>Fish</i>	Creamed Salmon on Toast.
<i>Entree</i>	Grilled Chops and Tomatoes. Saute Kidney.
<i>Hot Joint</i>	Roast Lamb.
<i>Cold Joint</i>	Cold Bacon and Tongue.
<i>Potatoes</i>	Roast Potatoes. Boiled Potatoes. New Potatoes, steamed.
<i>Vegetables</i>	Fresh Peas. Cauliflower. Green Salad.
<i>Hot Sweets</i>	Fresh Fruit Tart. Steamed Jam Sponge. Rice Pudding.
<i>Cold Sweets</i>	Ices and Fresh Fruit. Orange and Grapefruit Salad. Fresh Fruit.

TUESDAY

<i>Soup</i>	Green Pea Soup.
<i>Vegetarian Dish</i>	Cheese Salad.
<i>Fish</i>	Fried Fillets of Haddock.
<i>Entree</i>	Veal and Ham Pie. Vienna Steaks and Fried Onions. Haricot Oxtail.
<i>Cold Joint</i>	Galantine.
<i>Potatoes</i>	Chips. New Potatoes. Roast Potatoes.
<i>Vegetables</i>	Greens. Carrots. Canned Spinach. Raw Tomatoes.
<i>Hot Sweets</i>	Apricot Charlotte. Steamed Sultana Sponge.
<i>Cold Sweets</i>	Banana Flan. Jelly Sponge. Fresh Stewed Fruit and Junket. Fresh Fruit.

WEDNESDAY

Watercress Soup.
Cheese Pudding.
Sardine Salad.
Braised Chops.
Rissoles.
Liver and Bacon.
Veal and Ham Pie.
Roast Potatoes.
New Potatoes.
Mashed Potatoes.
Onions.
Cauliflower.
Marrow.
Russian Salad.
Gooseberry and Rhubarb Tart.
Summer Pudding.
Ices.
Fresh Fruit Salad.
Fresh Fruit.

THURSDAY

Brown Vegetable.
Welsh Rarebit and Tomato.
Herring Salad.
Fish Balls.
Hotpot.
Fried Sausages and Bacon.
Boiled Silverside of Beef.
Jellied Veal.
Steamed Potatoes.
Mashed Potatoes.
Chips.
Greens.
Carrots and Turnips.
Green Salad.
Guards Pudding, steamed.
West Riding Pudding.
Banana Milk Jellies.
Rhubarb Fool.
Fresh Fruit.

FRIDAY

<i>Soup</i>	Scotch Broth.
<i>Vegetarian Dish</i>	Macaroni Cheese.
<i>Fish</i>	Fried Fillet of Fish. Salmon Mayonnaise.
<i>Entree</i>	Gateau of Meat and Tomato Sauce. Boiled Bacon.
<i>Cold Joint</i>	Brawn.
<i>Potatoes</i>	Chips. Roast Potatoes. New Potatoes.

<i>Vegetables</i>	Fresh Peas or Beans. Marrow or Cauliflower. Raw Tomatoes.
<i>Hot Sweets</i>	Raisin Pie. Baked Chocolate Pudding.
<i>Cold Sweets</i>	Fruit Tapioca Cream. Fruit Salad and Custard. Fresh Fruit.

STAFF CANTEEN MENUS

<i>Soup</i>		Chicken Soup.
<i>Entree</i>	Boiled Gammon, Butter Beans and Parsley Sauce.	Curried Chicken and Rice.
	Savoury Steak and Fried Onions.	Grilled Steak and Fried Onions.
<i>Vegetarian</i>		Baked Beans on Toast.
<i>Joint</i>	Roast Lamb and Mint Sauce.	Roast Lamb and Mint Sauce.
<i>Cold Meat</i>	Steak and Kidney Pie.	Pressed Tongue.
<i>Vegetables</i>	Potatoes—Boiled.	Potatoes—Boiled.
	Chips.	Chips.
	Greens.	Greens.
		Carrots.
<i>Sweets</i>	Roseneath Pudding and Chocolate Sauce.	Boiled Cherry and Gooseberry Pudding and Custard.
	Plum Tart and Custard.	Baked Mince Tart and Custard.
	Rice Pudding.	Sponge Trifle.
	Stewed Prunes or Figs and Custard	Rice Pudding.
	Fruit Salad and Custard.	Stewed Figs or Prunes and Custard.
	Apricots and Custard.	Fruit Salad and Custard.
	Ices.	Ices.
<i>Sundries</i>	Cream.	Cream.
	Jam or Syrup instead of Custard.	Jam or Syrup instead of Custard.
	Cheddar Cheese.	Pickles.
	Chilvern Cottage Cheese.	Chutney.
	Salad.	Cheese.
	Tea.	Chilvern Cottage Cheese.
	Coffee.	Milk.

SPECIAL LUNCHEON

1/4 inclusive.

Steamed Salmon and Hollandaise Sauce
or Fried Plaice *or* Fried Skate.
or Roast Beef *or* Mutton and Horseradish Sauce
or Onion Sauce.
 Vegetables and Sweets as above
or
 Roll, Butter and Cheese *or* Tea or Coffee.

APPENDIX VI

DATA SHEET

I. ESTIMATING NUMBERS.

Number of employees (men).
 Number of employees (women).
 Number of employees (juvenile).
 Number returning home to dinner.
 Number bringing food from home.
 Local facilities.

II. EXTENT OF SERVICE.

Breakfasts.
 Mid-day dinners.
 Light lunches.
 Tea.
 High teas.
 Meals for night workers.
 Provision for re-heating food.
 Catering for social functions.
 Other meals for staff, directors, visitors.
 Service of refreshments in factory during rest pauses.
 Number of sittings.
 Type of menu(s).
 Cafeteria or hatch.
 Waitress service.

III. ACCOMMODATION REQUIRED.

Kitchen.
 Scullery.
 Wash up.
 Vegetable scullery.
 Pastry room.
 Cold room.
 Servery.
 Pantry or stillroom.
 Supervisor's office.
 Storage rooms.
 Cloakroom for kitchen staff.
 Rest or dining-room for kitchen staff.
 Dining-rooms for workpeople, foremen, staff, management and visitors.
 Lounge.
 Cloak rooms and lavatories.
 Recreation rooms.
 Sun terrace or roof garden.

IV. COOKING EQUIPMENT.

Ovens: Pastry, roasting, general.
 Hot-plates or boiling tables.
 Stock pot.
 Steamers.
 Fish fryers.
 Hot closets.
 Bain maries.
 Water boilers.
 Grills.
 Boiling pans.

V. OTHER KITCHEN EQUIPMENT.

Sinks: Vegetable, washing-up, meat or fish, other.

Refuse bins.
 Washing-up machine.
 Potato peeler.
 Potato chipper.
 Mechanical mixer(s).
 Slicers and mincers.
 Utensil racks.
 Trollies.
 Bread cutter.
 Carver.
 Ice cream making machine.
 Ice cream storage box.
 Urns.
 Tea and coffee equipment.
 Cooking utensils.
 Kitchen furniture.

VI. FUEL FOR COOKING AND HOT WATER SUPPLY.

Anthracite, coal, coke, electricity, gas, high pressure hot water, live steam.

VII. STORAGE.

Refrigerator.
 Larder for fresh stores.
 Dry goods.
 China, glass, cutlery.
 Vegetable racks.
 Linen cupboard.
 Fuel bins.
 Weighing scales.

VIII. LIGHTING AND VENTILATION.

Artificial lights.
 Hoods and vents over apparatus.
 Extractor fans.
 Radiators.

IX. SERVERY.

Hatches.
 Counter.
 Hot cupboards.
 Bain maries.
 Shelving for sundries, mineral waters, etc.
 Tea and coffee apparatus.

X. DINING ROOM EQUIPMENT.

Tables.
 Chairs or benches.
 Crockery.
 Cutlery.
 Lighting and ventilation fixtures.
 Heating instalment.

ADDITIONAL EQUIPMENT.

Table cloths and serviettes.
 Glasses, jugs, cruets.
 Curtains.
 Pictures or posters.
 Menu boards.
 Trays.
 Cleaning equipment.

APPENDIX VII

COOKING EQUIPMENT

Whatever fuel is decided upon there are various points that govern the choice of the actual equipment, the type of menu being the most important.

Lists estimating cooking capacity often give what appear to be contradictory statements and as at present there is no basic standard method of measuring cookers, steamers, etc., such a list would probably be more confusing than helpful.

The following lists will serve as a guide to the amount of equipment and approximate cost for good class equipment, taken from information received from Suppliers in May, 1940. War will probably cause rise in prices as time goes on.

COOKING AND SERVICE EQUIPMENT FOR CANTEEN SERVING 200 LUNCHES

Type.	No.	Capacity.	Price Range for both Gas and Electric.
Ovens	3	15—18 cu. ft.	£65—£134.
Steamers	1	6 cu. ft.	£50—£65.
Fish Fryer	2-pan.	18" × 18" each.	£43—£65.
Vegetable Boilers	2	20-galls. each.	£24—£32.
Griller	1	2—3 sq. ft.	£17—£30.
Hot Cupboards (all metal) and Counter of best quality	1-Set.	15 to 20 ft.	£110—£160.

Further sums to be allowed if required for Refrigerator £80; Sinks and Benches £35; Potato Peeler £30; Dishwashing Plant £120 to £150 (or Washing-up Sinks £20); Water Boiler or Tea Apparatus £30 to £80; Bread and Meat Cutting Machine £52.

COOKING AND SERVICE EQUIPMENT FOR CANTEEN SERVING 500 LUNCHES

Type.	No.	Capacity.	Price Range.
Ovens (Low)	3	20 cu. ft.	£77—£155.
Ovens (Tall Roasting)	1	15 cu. ft.	£87—£100.
Boiling Table	1	6 ft. × 2 ft. 6 in.	£29—£38.
Steamers	3	18 cu. ft.	£150—£195.
Fish Fryers	3-pan.	21" × 21" each.	£64—£95.
Vegetable Boilers	3	30-galls. each.	£51—£67.
Griller	1	2 to 3 sq. ft.	£17—£30.
Hot Cupboards (all metal) and Counter of best quality	1-set.	30 to 50 ft.	£200—£300.

Further sums to be allowed if required for Refrigerator £150; Sinks and Benches £60; Potato Peeler £52; Dishwashing Plant £140—£160; Water Boiler or Tea Apparatus (2-sets) £60 to £160; Bread and Meat Cutting Machine £68.

COOKING AND SERVICE EQUIPMENT FOR CANTEEN SERVING 700 LUNCHES

Type.	No.	Capacity.	Price Range.
Ovens (Low)	4	24 to 26 cu. ft.	£126—£216.
Ovens (Tall), Roasting	2	30 cu. ft.	£174—£200.
Ovens, Pastry	1	3-tier type.	£84—£104.
Boiling Table	1	6 ft. × 2 ft. 6 in.	£29—£38.
Steamers	4	24 cu. ft.	£200—£260.
Fish Fryer	3-pan.	24" × 24" each.	£68—£102.
Vegetable Boilers	4	30-gallons each.	£68—£90.
Griller	1	3 sq. ft.	£17—£30.
Bain Marie	1	6 ft. long.	£37—£61.
Hot Cupboards (all metal) and Counters of best quality	2-sets.	30 to 35 ft. each.	£300—£350.

Further sums to be allowed, if required for Refrigerated Cold Room £200 to £250; Sinks and Benches £75; Potato Peeler £52; Dishwashing Plant £250 to £300; Water Boiler or Tea Apparatus (two sets) £60 to £160; Bread and Meat Cutting Machine £68.

HOT CUPBOARDS AND COUNTERS

Hot cupboards and counters must be provided for service, to warm plates and to keep hot food assembled awaiting service. They may be heated by gas, steam or electricity and should include bains maries. The use of these counters and cupboards should be as limited as is consistent with the rapid serving of really hot food, since they not only entail heavy capital outlay, but involve heavy costs out of proportion to those for the actual cooking of the food.

WARMING-UP OVENS

If many employees bring food to be heated, special ovens or warming cupboards should be provided for this purpose. It is not always possible to use the cooking equipment, and a long period of slow heating in a hot counter renders the food unpalatable.

AUXILIARY KITCHEN EQUIPMENT

Other equipment with which the canteen kitchen must be provided includes tea and coffee making apparatus, washing-up machines, peelers, mincers, mixers, bread-cutting and carving utensils, etc. The type of such equipment, however, will depend upon the numbers for whom meal services are to be planned. In the large canteen the saving in time and labour justifies the provision of mechanical equipment. In the small one the kitchen staff may have time to do certain work by hand and the expense of some equipment would not be justified. It is unwise to install in the kitchen any equipment, power or hand-driven machines, utensils or "gadgets" which will not be used to full capacity.

Tea and Coffee-making Apparatus

A good cup of tea is perhaps one of the most appreciated services a canteen can offer. It is, therefore, important that the equipment for tea-making shall ensure that this is available. In some canteens this equipment will be in use most of the day and it is essential that it shall be reliable in performance. There are many suppliers whose equipment has been installed in industrial canteens for a number of years and the canteen manager is best advised to examine the claims of these suppliers for their particular equipment.

Carvers and Slicers

Machines for carving meat are desirable in all but small canteens. For the large canteens power-driven carving machines will be necessary. Large joints need a very experienced carver and, large or small, involve a considerable amount of waste if carved by hand. Moreover, carving which would take an hour by hand can be done in five minutes with a power-driven carving machine. Not only is carving by machine more economical, but it makes it possible to serve more uniform portions, and the appearance is usually more appetising.

Mechanical mixers, meat choppers and other apparatus must be considered in relation to the needs of a particular canteen.

Potato Peelers

Power-driven potato peelers are necessary when a number of dinners are served. The hand machines for small numbers are thoroughly reliable.

Potato Chippers and Mashers

Efficient machines, both hand and power operated, are on the market, and in view of almost daily demand for chipped potatoes, this item of equipment must be installed. There are good types of machines for mashing potatoes, and as this operation by hand is laborious and slow, a mechanical masher is essential.

Bread Cutters

Bread cutters are a necessity. In the small canteen these may be hand operated, but in the large canteen power-driven machines should be installed. Machines which cut and butter are not general but are used with advantage where sandwich meals and packet lunches are needed for distribution to departments or canteen stations.

Washing-up Machines

There are several types of washing-up machines on the market, and the respective merits of the different types for their particular purpose should be examined by a canteen manager supplying, say, over 100 mid-day meals.



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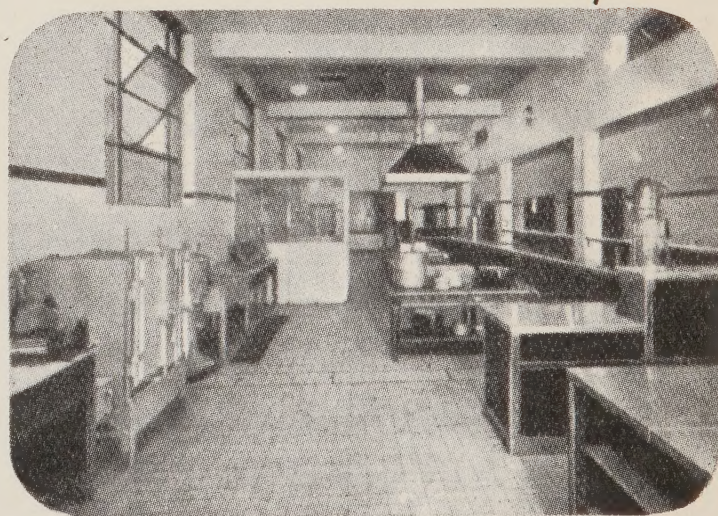
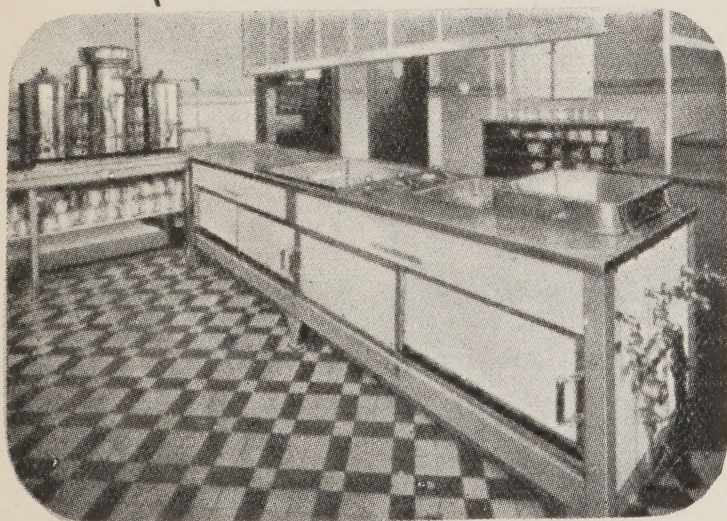
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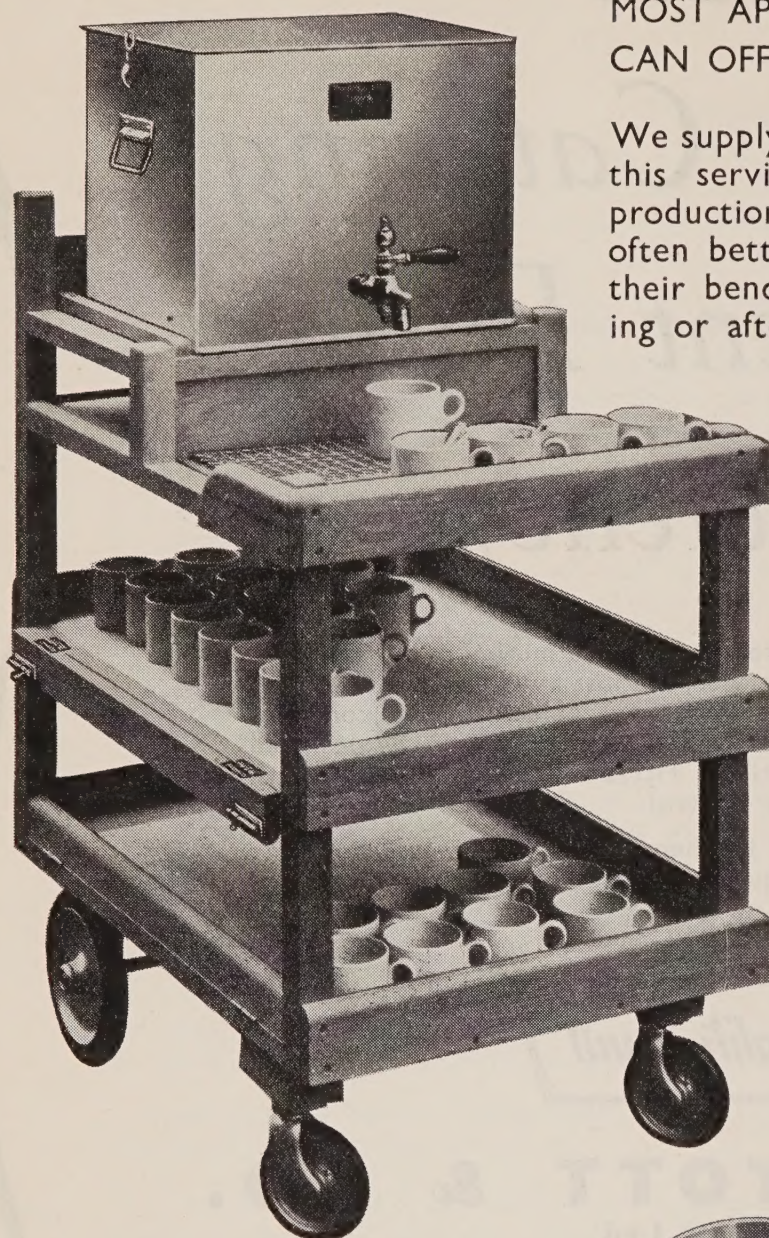
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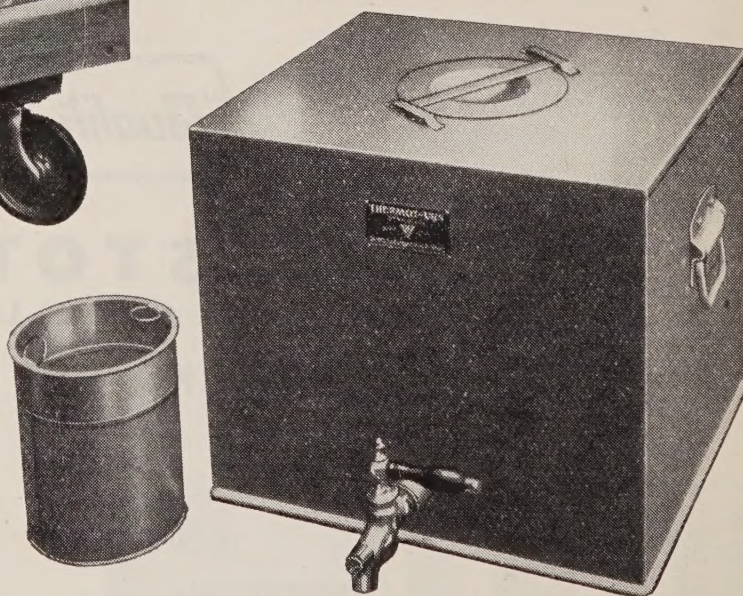
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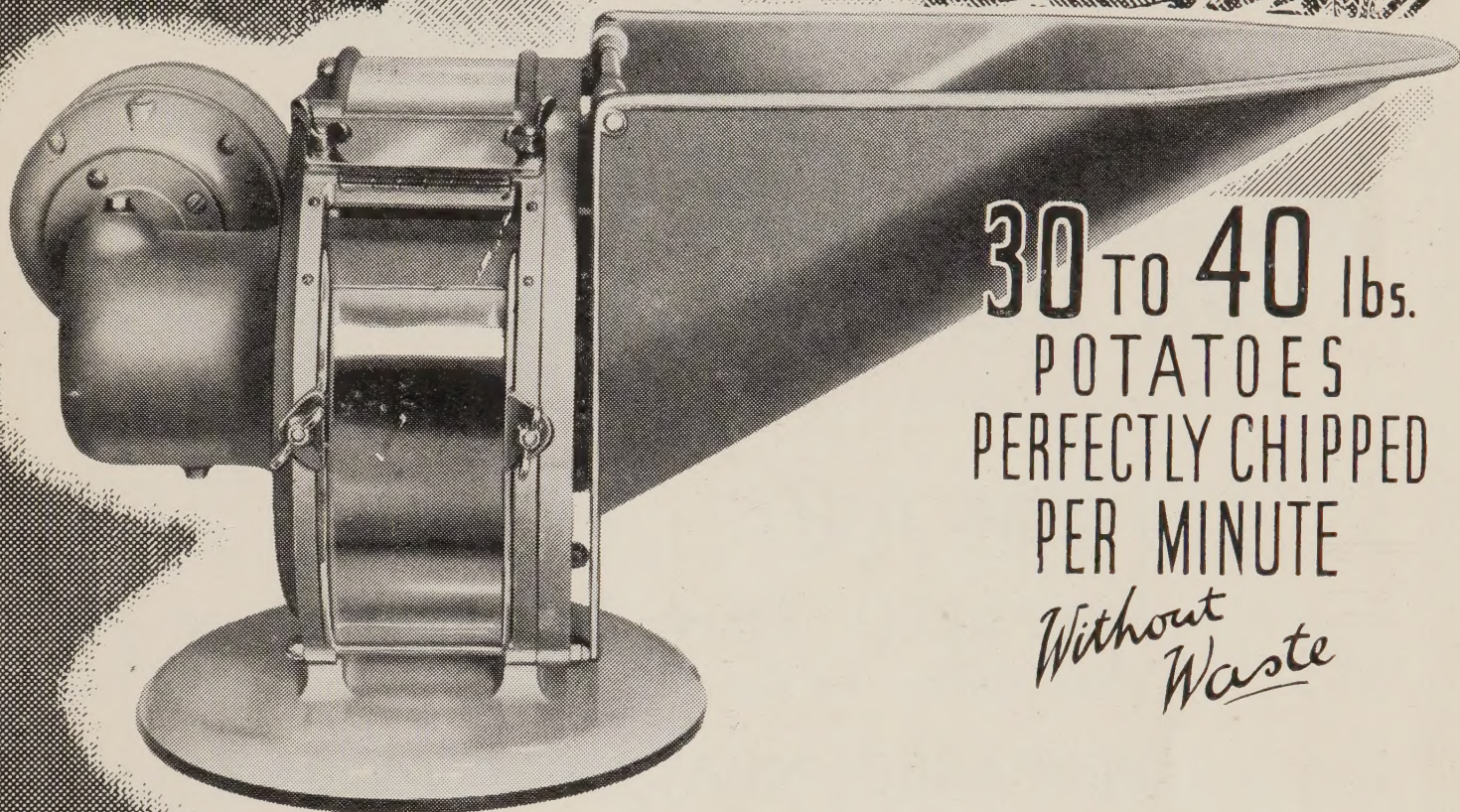
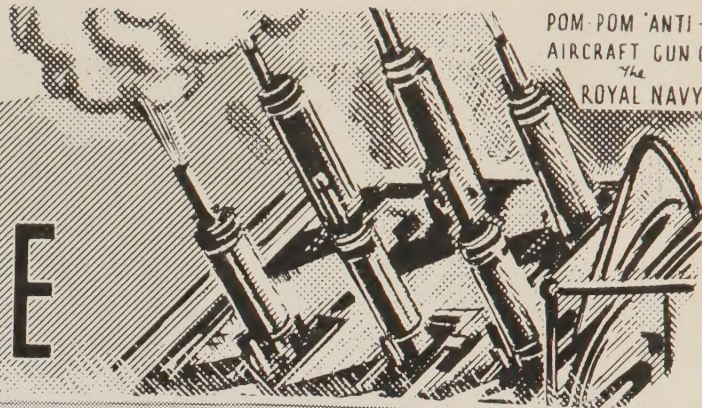
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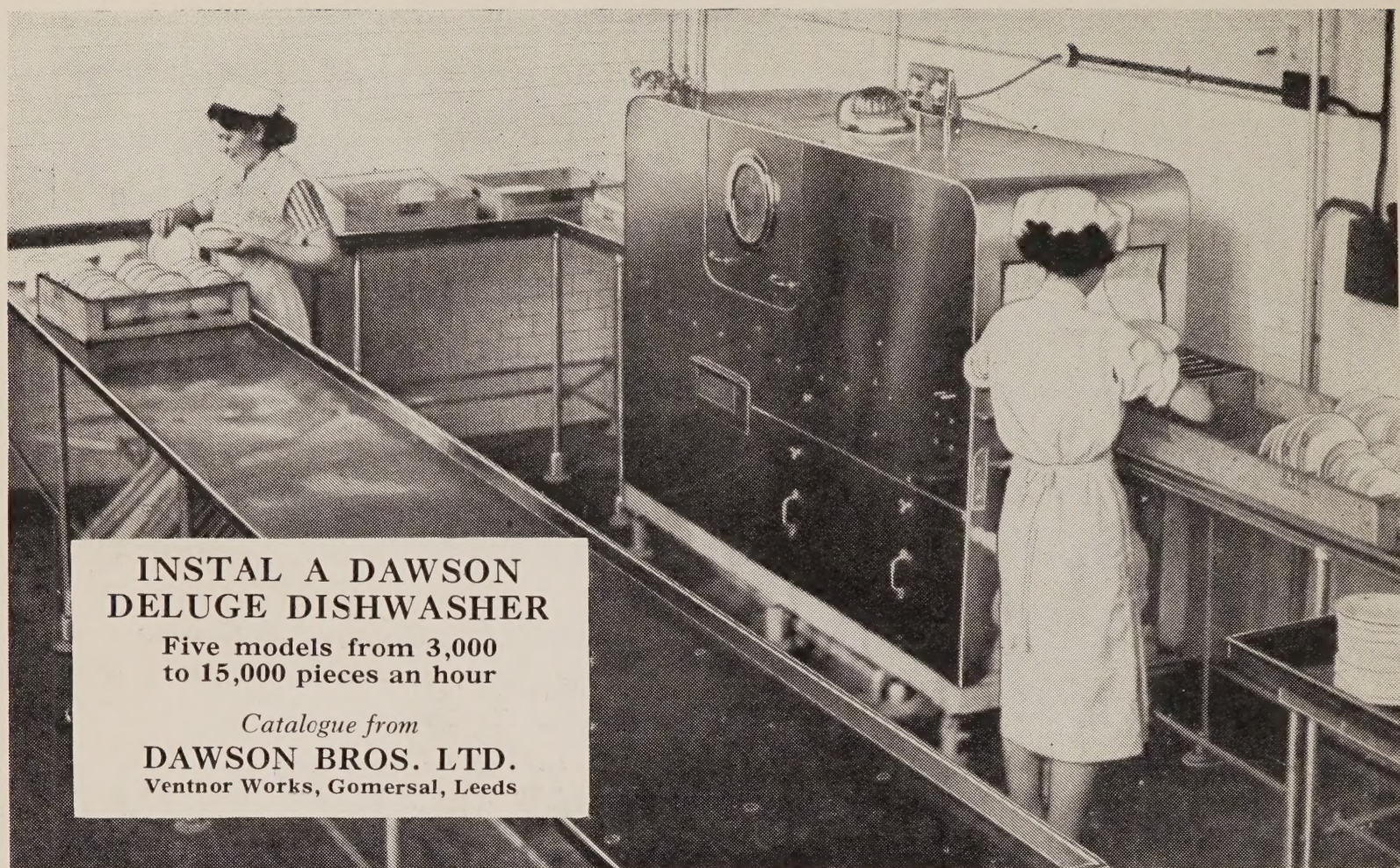
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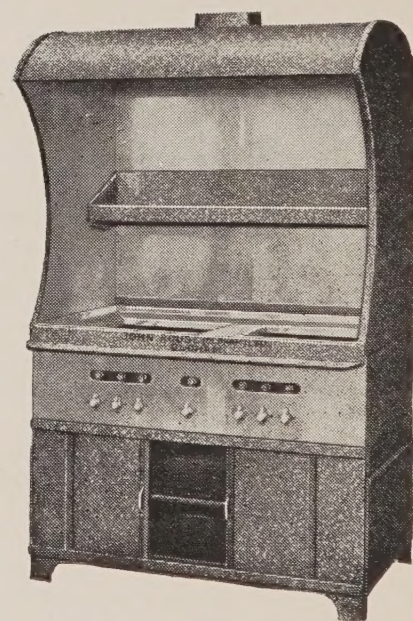
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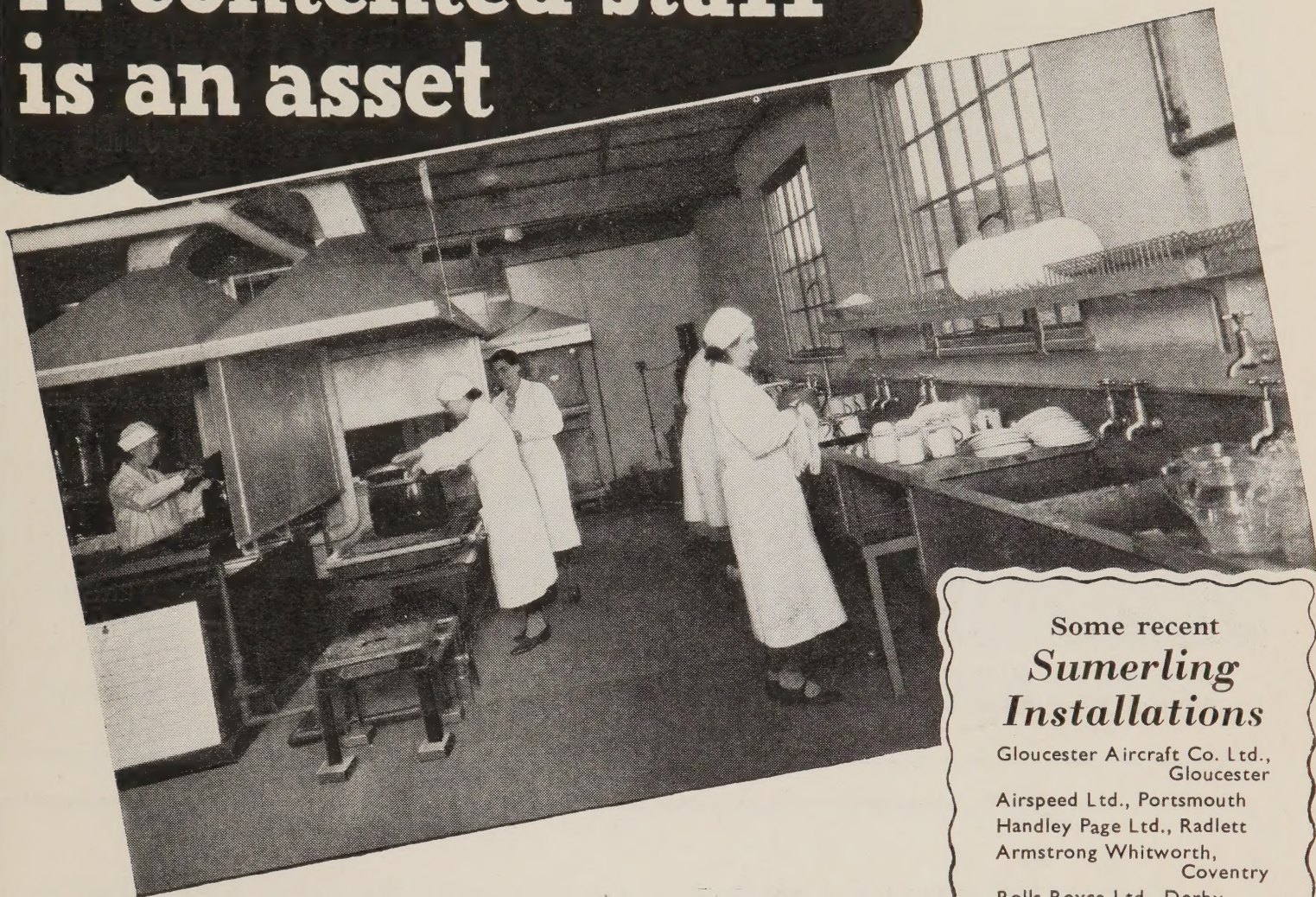
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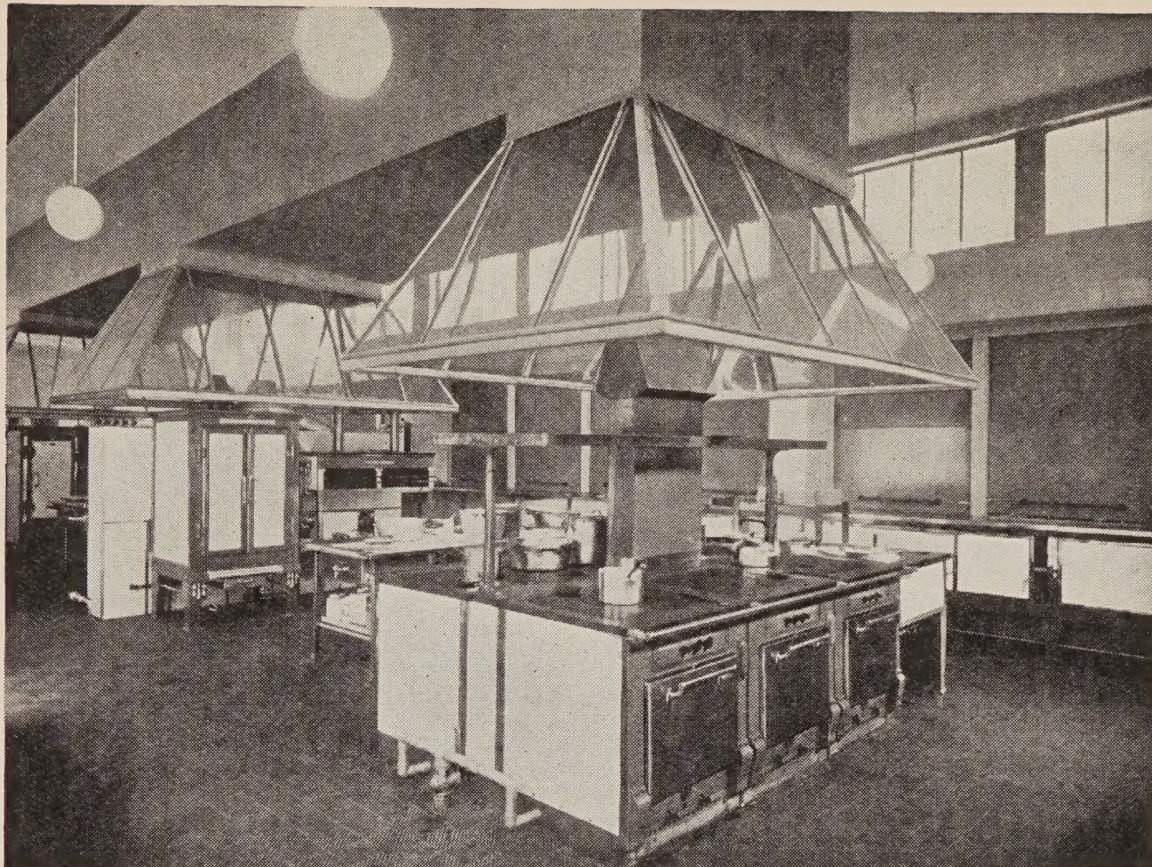
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Ash's Manufacturing Co. Ltd. 60-66, Blackfriars Road, London, S.E.1.	..	All equipment for cooking and service <i>See advert. on page v</i>
Avamore Engineering Co. Ltd., 104, High Holborn, London, W.C.1.	..	Kitchen machines
Benham & Sons, Ltd., 66, Wigmore Street, London, W.1.	..	Cooking apparatus <i>See advert on page viii</i>
Berkel & Parnall's Slicing Machine Manufacturing Co. Ltd., Ponders End, Middlx.	..	Kitchen machines
Carron Company, Falkirk, Scotland	..	Cooking apparatus
Cox & Company, Watford By-Pass, Watford, Herts.	..	Folding chairs
Chiswick Products, Ltd. Burlington Lane, Chiswick, W.4.	..	Polishes
Dartmouth Manufacturing Co. Ltd., Trinity Road, West Bromwich	..	Chairs
Dawson Bros. Ltd., Gomersal, Leeds	..	Dishwashers <i>See advert. on page vi</i>
Dudson Bros. Ltd., Hanley, Stoke-on-Trent	..	Canteen ware
Dust-Allayer Co., 51, Anstey's Road, Bristol	..	Dust allayer and cleaning equipment
Esse Cooker Co., Bonnybridge, Scotland	..	Heat storage cookers
Electrolux, Ltd., Luton, Beds.	..	Refrigerators
Evertaut, Ltd., Perry Barr, Birmingham, 22	..	Steel chairs
Jas. Farquharson & Sons, 59-64, Houndsditch, London, E.C.3.	..	Everything for canteens, kitchen, service and furniture <i>See advert on page ii</i>
Firth-Vickers Stainless Steels, Ltd., Sheffield	..	Stainless cutlery and counter fittings
General Electric Co. Ltd., Magnet House, Kingsway, London, W.C.2.	..	Electric cooking equipment
Hobart Manufacturing Co. Ltd., New Southgate, London, N.11.	..	Kitchen machines.
Imperial Machine Co., Victoria Works, Edgware Road, N.W.2.	..	Potato peelers
Industrial Catering, Ltd. Carlton House, Regent Street, London, S.W.1.	..	Caterers
Jackson Boilers, Ltd., Holbeck, Leeds, 11. . . .	..	Tea brewers and water boilers
Jackson Electric Stove Co. Ltd., 143, Sloane Street, London, S.W.1.	..	Electric cooking equipment
Lancashire Dynamo & Crypto Ltd., Acton Lane, London, N.W.10.	..	Food machinery

Leabank Chairs, Ltd., 7, Imperial Buildings, Kingsway, W.C.2.	..	Chairs.
J. Lyons & Co. Ltd., Cadby Hall, London, W.14.	..	Caterers
Mealing Bros. Ltd., High Wycombe, Bucks.	..	Chairs (wood)
National Cash Register Co. Ltd., 206-216, Marylebone Road, London, N.W.1	..	Cash registers
Pel, Ltd., Oldbury, Birmingham	..	Steel chairs and tables
Peerless Electric Manufacturing Co. Ltd., Carlisle Road, The Hyde, London, N.W.9.	..	Kitchen machines <i>See advert. on page iii</i>
Radiation, Ltd., 7, Stratford Place, London, W.1.	..	All canteen equipment
John Rouse (Oldham) Ltd., Booth Street, Oldham	..	Kitchen machines and cookers <i>See advert. on page vi</i>
Simplex Electric Co. Ltd., Oldbury, Birmingham.	..	Electric cookers and heaters
H. Smethurst (Fish curers) Ltd., Ropery Street, Grimsby	..	Fish <i>See advert. on page iv</i>
Staff Caterers, Ltd., Universal House, Southwark Bridge, London, S.E.1.	..	Caterers
Staines Kitchen Equipment Co. Ltd., 94, Victoria Street, London, S.W.1.	..	Kitchen equipment
W. M. Still & Sons, Ltd., 24-31, Charles Street, Hatton Garden, London, E.C.1.	..	Water boilers
Jas. Stott & Co. (Engineers) Ltd., Vernon Works, Oldham	..	Boilers and cookers <i>See advert. on page i</i>
Sumerling & Co. Ltd., 141-147, Old Street, London, E.C.1.	..	All equipment for kitchen and service <i>See advert. on page vii</i>
Tan-Sad Chair Co. (1931) Ltd., Avery House, Clerkenwell Green, E.C.1.	..	Chairs
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